

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION**

RICHARD COOEY, et al.,

Plaintiffs,

v.

Case No. 2:04-cv-1156

JUDGE GREGORY L. FROST

Magistrate Judge Mark R. Abel

TED STRICKLAND, et al.,

Defendants.

OPINION AND ORDER

This matter is before the Court for consideration of the December 3, 2009 Emergency Motion of Intervenor-Plaintiff Kenneth Biros for a Temporary Restraining Order, or, at the very least, for an Order under the All Writs Act Staying his Execution by Defendants and the State of Ohio. (Doc. # 610.) Also before the Court is a memorandum in opposition filed by Defendants. (Doc. # 614.) For the reasons that follow, this Court finds that Biros is not entitled to a stay of execution prohibiting the State of Ohio and any person acting on its behalf from implementing an order for his execution.

I. Background

A. Procedural Background

The captioned case is a 42 U.S.C. § 1983 civil rights action that challenges multiple facets of the lethal injection protocol used by the State of Ohio. The State executed Richard Cooley, the original plaintiff in this litigation, subsequent to the December 8, 2004 inception of this case. Additional plaintiffs remain in this litigation, including Kenneth Biros, whom the Court permitted to intervene in a November 9, 2006 decision. (Doc. # 126.) On November 30, 2006, at the State's request, the Supreme Court of Ohio set an execution date for Biros of

January 23, 2007. (Doc. # 144-4.) Biros then filed a December 5, 2006 Emergency Motion for Preliminary Injunction. (Doc. # 144.) This Court granted Biros a preliminary injunction that stayed his execution on December 21, 2006.¹ (Doc. # 151.) Defendants appealed the grant of the preliminary injunction. (Doc. # 152.)

On appeal, Defendants asked the Sixth Circuit to vacate the preliminary injunction in light of the United States Supreme Court's decision in *Baze v. Rees*, 128 S. Ct. 1520 (2008). On July 8, 2008, a three-judge panel of the court of appeals "conclude[d] [that] the question of whether the preliminary injunction should remain in effect following the *Baze* decision is an issue that should be addressed initially by the district court." (Doc. # 278, at 1.) Accordingly, the panel remanded the appeal with instructions to this Court to "schedule whatever briefing and hearing schedules it deems necessary for consideration of this matter." (*Id.* at 2.) This Court therefore proceeded to deny Defendants' motion to dismiss Biros and to schedule discovery and additional briefing leading to a scheduled December 15, 2008 in-court hearing on the preliminary injunction issue. (Doc. # 361.) Following a period marked by numerous discovery disputes, the parties jointly requested and obtained a change in the case schedule so that the hearing would proceed on March 2, 2009. (Doc. # 418.) After even additional discovery issues, the parties again jointly requested a change in the hearing schedule that this Court granted. (Doc. # 449.) The Court scheduled the *Baze* preliminary injunction hearing to commence on March 23, 2009. (*Id.* at 2.) At the conclusion of the five-day hearing, this Court took the matter

¹ The findings of fact related to that preliminary injunction were not conclusive, however, given that "findings of fact and conclusions of law made by a district court in granting a preliminary injunction are not binding at a trial on the merits." *United States v. Edward Rose & Sons*, 384 F.3d. 258, 261 (6th Cir. 2004) (citing *University of Texas v. Camenisch*, 451 U.S. 390 395 (1981)).

under advisement. In an April 21, 2009 Opinion and Order, the Court concluded, based on the evidence then before the Court and the applicable law, that Biros was not entitled to a continued stay of execution because he had failed to demonstrate a strong likelihood of success on the merits of his claims. The Court therefore vacated the preliminary injunction staying Biros' execution. (Doc. # 471.)

Biros filed an appeal from this Court's decision (Doc. # 483) and unsuccessfully sought to have this Court reinstate his stay pending a decision by the Sixth Circuit (Docs. # 486, 488). In July 2009, Biros voluntarily dismissed his appeal. (Doc. # 524.) While this litigation continued toward trial, Ohio subsequently set a new execution date for Biros of December 8, 2009. The parties also filed competing summary judgment motions, which, as will be discussed later, were held in abeyance along with a motion to compel. (Doc. # 590.) After extended discussion with all counsel involved, this Court then issued a new stay of execution for Biros on October 19, 2009. (*Id.*) Defendants appealed and, after the State announced the adoption of a new protocol with a one-drug option and an intramuscular injection option, obtained a reversal. *Cooey v. Strickland*, No. 09-4300, 2009 WL 4061632 (6th Cir. Nov. 25, 2009). In vacating the stay, however, the three-judge appellate panel stated:

Whether a stay is warranted under the new protocol is not before us at this time. Should Biros bring a new challenge on this ground, the district court and we can consider whether he has met the requirements for granting a stay, including the requirement of establishing a likelihood of success on the merits.

Id. at *2. Biros has filed a motion for such a stay (Doc. # 610) and has successfully amended his complaint to target the latest protocol (Docs. # 608, 617, 618). The parties completed briefing on the motion in accordance with an expedited briefing schedule and, the Court, having conducted an emergency hearing on December 4, 2009, finds the motion ripe for prompt

disposition.²

B. March 23-27, 2009 Hearing Testimony³

Beginning on March 23, 2009, this Court conducted a five-day hearing on, in the language of the court of appeals, “whether the preliminary injunction issued on December 21, 2006, should be vacated in light of the *Baze* decision.” (Doc. # 278, at 1-2.) The following account summarizes all of the witnesses’ testimony offered at that hearing through in-court testimony, testimony by video conference, and testimony by deposition. By order of this Court and agreement of the parties, all references to members of Ohio’s execution teams are by generic identifiers established by the parties and employed to address anonymity and safety concerns.

1. Team Member # 19

Team Member # 19 was the first witness called by Biros. He oversees the general operations of an Ohio prison and ensures that proper procedures are adhered to by the staff. Team Member # 19 also functions as the Incident Commander on the execution team. He has been a member of the execution team since 1999. In that capacity he oversees the execution process, maintains the time lines set for the execution, processes visitors, and completes the

² The Court notes that pursuant to the parties’ request, the Court has accepted via incorporation the testimony offered in connection with the March 2009 proceedings. Accordingly, much of today’s decision reproduces relevant factfinding and analysis from the Court’s April 9, 2009 Opinion and Order. (Doc. # 471.) Recognizing that time constraints may make it difficult for the court of appeals to review all the transcripts and depositions involved in their entirety before December 8, 2009, the Court has again endeavored to provide a full summary of the testimony received.

³ The following section of today’s decision was originally set forth in large part in this Court’s April 21, 2009 Opinion and Order. (Doc. # 471.) Consequently, its references to the current protocol target the former three-drug protocol in effect at that time. Similarly, its reference to team members target those individuals on the execution team at that time.

required documentation. Team Member # 19 testified that he has held several positions on the execution team before becoming the Incident Commander. He stated that he is familiar with all of the activities associated with the execution process.

According to Team Member # 19, the overall execution team consists of two separate teams: the security team, which is comprised of approximately fifteen members, and the medical team, which consists of three members. Normally, only seven of the fifteen security team members participate in an execution. All of the members are volunteers.

Team Member # 19 explained the application process for a security member. When a vacancy occurs, the position is posted and applicants submit an application. The applicants are generally employees of the Ohio Department of Rehabilitation and Correction (“DRC”) and have other jobs within the system. The applicants’ work history, absentee history, and disciplinary record are reviewed and, if satisfactory, the names are presented to the team for its review. If the team is comfortable with an applicant, then the commander and eventually the warden review the application. If a team member no longer wants to be on the team, that member submits a letter of resignation that is processed through appropriate channels. Team Member # 19 testified that he was not aware of any screening for mental or physical health issues.

Team Member # 19 was then asked to review, in general, the steps leading up to an execution and the responsibilities of the team members. He related the following procedures. Two transportation team members travel to the facility where the condemned inmate is located and transport the inmate to the Southeastern Ohio Correctional Facility (“SOCF”) in Lucasville, Ohio. This is approximately twenty-four hours before the execution. The inmate is placed in a special holding cell and a team member begins to log on a computer all of the events involving

the inmate. The incident commander reviews with the inmate various matters including the inmate's last meal request, personal property arrangements, and funeral arrangements, as well as the execution procedures. Team Member # 19 indicated that the team members try to treat the inmate with respect. Normally, five or more security team members stay at the holding cell site and observe the inmate at all times. They constantly observe the inmate in the cell, monitor the visitors who are permitted in to see the inmate, and talk with the inmate. Support staff escorts the visitors—normally family members, lawyers, and clergy—to the holding cell area to visit with the inmate.

On the morning of the execution, after the warden reads the death warrant to the inmate, two medical team members insert catheters into veins on both the left and right arms, which are the preferred sites, and attach heparin locks to the catheters in order to administer drugs into the inmate in the execution chamber. The heparin locks are held in place with tape. Security members are in the holding cell as the medical team performs its duties. A decision is made as to which of the two sites is the better site for the injection and that information is relayed to the medical team member in charge of injecting the drugs.

The security team members in charge of escorting the inmate into the execution chamber and securing the inmate to the bed are referred to as the strap down team. The bed has four straps used to secure the body to the bed and one strap on each arm used to secure each arm to extensions to the bed used to support the arms. After the strap down is completed, some of the security team members exit the room and some members remain while the two medical team members attach an intravenous line to each of the heparin locks. The intravenous lines are connected to tubing that traverses through the wall of the chamber into the equipment room.

After the lines are inserted, the medical team and security team members exit the death chamber. The drugs are injected from the equipment room, through the tubing, and into the intravenous sites.

Team Member # 19 then explained the former drug injection protocol. It has been modified by procedures that are unwritten but that are nevertheless followed. The medical team member selected to inject the drugs, who has always been Former Team Member # 18 in all but one execution since 1999, normally stays in the equipment room. Prior to the execution, Former Team Member # 18 mixed the first drug under the observation of the health care administrator, who is not a member of the execution team, and then prepared eight syringes, five with the three different drugs and three with saline solution. In the equipment room with Former Team Member # 18 is a narrator who records everything that takes place via telephone to another office. Along with the narrator, normally the Director of Corrections, the Assistant Director of Corrections, and sometimes the Regional Director are also present. Former Team Member # 18 has a backup medical team member in the equipment room in the event something should happen to Former Team Member # 18.

In the meantime, witnesses are seated behind glass windows in the viewing area. There is a room for the inmate's selected witnesses and a room for the victim's witnesses in which the media representatives also view the execution. On the morning of the execution, television monitors in both viewing rooms are turned on so that the witnesses may view the medical team members inserting the catheters in the holding cell before the inmate is led down the hallway to the execution chamber. Once the inmate is inside the execution chamber, the television monitors are turned off.

Team Member # 19 was asked several questions about the Joseph L. Clark execution conducted on May 2, 2006. Team Member # 19 stated that he had performed the narrator function during that execution. Team Member # 19 recounted that the medical team members were having no success in establishing catheters and heparin locks because it was difficult to access the inmate's veins. Finally, a vein was found and the process proceeded with only one catheter in one arm instead of one catheter in each arm. The decision to proceed with the execution with only one insertion point established was made after discussions with the warden and the commander and after they had been advised by the medical team that the one site appeared to be sufficient. Inmate Clark was then taken to the execution chamber, placed on the bed, and strapped down. Clark made a last statement, and the warden gave the signal to proceed. The warden, the team leader, and inmate Clark were the only people in the execution chamber. Former Team Member # 18, who was in the equipment room and watching through the window, began to administer the drugs. The red light in the death chamber was switched on, which is the indication to those in the chamber that the process has begun. Former Team Member # 18 noticed that the drug was not having its intended effect at about the same time as when inmate Clark raised his head and stated, "Your drugs are not working." The curtain was closed and the medical team was summoned.

The medical team concluded that inmate Clark's vein had collapsed and that the first drug had infiltrated the tissue rather than entering the vein and bloodstream. The three medical team members, some security team members, and possibly other administrators entered the execution chamber. The medical team began looking for new insertion points. According to the time line that was generated as a result of the ongoing narration during the Clark execution,

Team Member # 19 testified, the curtain was closed at 10:37:46 a.m. when it was determined that something was wrong. At 11:09:49 a.m., the curtain was re-opened and the signal was given by the warden to restart the execution process. The injection process was completed at 11:23:58 a.m., and the time of death was announced to be 11:26 a.m. Team Member # 19 testified that he did not observe any indication that inmate Clark was in severe pain. From his observation point in the equipment room, Team Member # 19 stated, he believed that Clark was asleep by the time they started the injection process the second time.

Team Member # 19 identified Ohio's written execution protocol (Pl.'s Hrg. Ex. 12) and indicated that there were some changes made to the written protocol since the Clark execution. He also testified that there are several additions to the protocol that are not in writing and that have been adopted by custom and practice.

Team Member # 19 explained that after every execution, the team has a debriefing with selected staff members and a crisis intervention team. An execution team member can request mental health counseling if the member believes that it would be helpful.

Finally, Team Member # 19 recounted the schedule for execution team practices. Four weeks before a scheduled execution all of the members of the team practice. They rehearse all the steps that will be taken on the day of the execution. The team normally rehearses one or two times per week during the four weeks leading up to the execution.

2. Team Member # 12

The next witness to testify was Team Member # 12, who stated that he had been a member of the execution team for approximately four years. He testified that he is a member of the security team and that he has performed all of the duties associated with that status except for

serving as an escort to an inmate. Team Member # 12 stated that he has been with the DRC for thirteen years.

Team Member # 12 testified that he has participated in numerous executions, beginning with the execution of Herman Ashworth. Much of his testimony centered around the execution of Joseph L. Clark. During that execution, Team Member # 12 testified, he was a member of the strap down team. He stated that he was in room J-1 of the death house during the execution when he was asked to reenter the death chamber. Team Member # 12 testified that upon entering the chamber, he observed that Team Member # 11 was holding Clark's arm and rubbing it. Team Member # 12 stated that he took over the massaging of Clark's arm and that his understanding of the situation was that Clark had blown a vein and the massage was necessary to prevent knotting up. In addition to Clark, Team Member # 12 testified, there were six to seven other individuals in the death chamber at that time, including Team Member # 10, Team Member # 11, Former Team Member # 18, and the warden. Team Member # 12 explained that the medical team was looking for another site in which to insert a new IV. He testified that he did not see what Team Member # 18 was doing during this time. After a period of time, Former Team Member # 12 testified, he moved to Clark's other side and gently squeezed the inmate's bicep until a vein popped up that could be used for a new IV. Team Member # 12 stated that there had been no training for such an event and that there was no emergency plan in place; further, he explained that no one had suggested that he squeeze Clark's bicep. After the medical team utilized the new vein to start a second IV, Team Member # 12 testified, he returned to the death house room designated J-1 and prayed. Following the Clark execution, Team Member # 12 testified, there was a debriefing in which the crisis intervention team was made available to

the execution team. He testified that he does not know of any member of the security team who has ever taken advantage of the crisis intervention team.

Since the Clark execution, Team Member # 12 explained, there has been a different protocol in place as team members now take as much time as they need to perform their roles, slowing the process down. Team Member # 12 testified that he was also a member of the strap down team for the execution of Christopher Newton. He stated that he could not recall that any member of the execution team resigned during the debriefing on the Newton execution. Team Member # 12 also testified that he did not detect suffering on the part of either Clark or Newton.

3. Team Member # 10

Team Member # 10 is the execution team leader. He testified that he first joined the team in 1999 with the execution of Wilford Berry and that he has served as the team leader since approximately 2002 with the execution of Alton Coleman, supervising a total of twenty-four executions. The team leader, Team Member # 10 testified, makes the assignment for each member of the execution team and is in the death chamber with the warden during an execution.

Team Member # 10 described the execution process as follows: the warden reads the death warrant to the inmate, who is confined in the death house holding cell; team members then enter the cell and proceed to establish the heparin locks; the inmate is then escorted down the hallway to the death chamber and strapped down, where one medical team member establishes the IVs; two security team members then leave the chamber, leaving only the inmate, the warden, and the team leader in the room; and one medical team member is positioned in the equipment room as a backup to the executioner, Former Team Member # 18, who is also in the equipment room.

When asked about training, Team Member # 10 responded that he had received some training on how the protocol drugs affect the human body several executions ago—he thought perhaps after the Joseph Clark execution—and he stated that he has received no medical training or training on how to determine whether the drugs are actually working. Team Member # 10 described the rehearsals that the team undertakes, which involve practicing on a fake arm, with water being pushed through IV lines at least two times. He stated that there is no practice mixing of the protocol drugs and that Former Team Member # 18 mixes the actual drugs during the executions.

When then asked about the written execution protocol, Team Member # 10 explained that he does not think that the written protocol addresses what to do when both IV lines fail—something he stated has never happened—nor does he think the protocol addresses switching lines during the execution. According to Team Member # 10, the protocol does not limit where IV sites can be established, so the neck, head, or anywhere on the body could be used. He also stated that there is no written time limit on how long the team can engage in trying to establish IV sites, although there have been discussions that set the time limit at forty-five minutes to one hour. Team Member # 10 stated that the team will not begin the execution process until two IV sites are established, but this policy is not included in the written protocol. Although all team members receive a copy of the written protocol, Team Member # 10 testified, there is no formal testing on the protocol and it is possible but not probable that some team members have never read the protocol.

When asked about qualifications and individual team members, Team Member # 10 testified that all team members reported to him. He explained that one team member is a

phlebotomist, but there is no requirement that she perform daily IVs to be on the team. She is required to have a certification, Team Member # 10 explained, but only as part of a verbal understanding and not as a written protocol requirement; nothing in the written protocol requires periodic checking or monitoring of this team member's certification.

Team Member # 10 testified that another team member, Former Team Member # 18, also has a day-to-day job that does not involve IVs. The team leader stated that so far as he knows, it is not a requirement that the person who mixes and pushes the drugs has a day-to-day medical function. He also testified that no one on the execution team performs an assessment of Former Team Member # 18's competence to perform his medical job as part of the team. Team Member # 10 stated that he believed that Former Team Member # 18 had to have—and has—advanced certification status that permits him to administer the protocol drugs. When told that Former Team Member # 18 had intermediate emergency medical technician (“EMT”) status, Team Member # 10 responded that he had learned that fact for the first time that day. When asked whether an individual with intermediate EMT certification has the authority under Ohio law to administer the drugs, Team Member # 10 responded that this is apparently so. When then asked whether it was acceptable to him as team leader that Former Team Member # 18 had not informed him that the executioner's classification had dropped from advanced to intermediate, Team Member # 10 answered that he would have preferred to have known.

Team Member # 10 explained that he cannot see Former Team Member # 18 during the actual execution because the latter man is positioned behind a mirrored window. It is important to Team Member # 10 as team leader to know of any history of mental illness, he testified, but he has not looked into the issue and was not aware of any mental health issue or concern with

Former Team Member # 18. When asked about information related to Former Team Member # 18's mental health issues, including depression, that the executioner had provided on a disability request form, Team Member # 10 answered that he would have wanted to know about the information. If Former Team Member # 18 were currently in the condition described on the disability form, Team Member # 10 testified, then he would not want Former Team Member # 18 serving as Ohio's executioner.

Questions also addressed former team members, with counsel for Biros inquiring as to why eleven of thirteen (fourteen when a warden is included) retired team members had left for disability retirements. Team Member # 10 testified that he did not know the cause of the majority of these disability retirements, that he would be interested in the reasons behind the disabilities, and that he did not think he has the ability to learn this information. He explained that he knew that two retirees had retired for reasons unrelated to the execution process.

Team Member # 10 also testified that other than relying on sodium thiopental to put an inmate to sleep and his observation that the inmate was asleep, nothing else is done to ensure that there is no pain to the inmate in the execution process. He stated that during an execution, he looks at the inmate's breathing pattern, which slows and often results in deep snoring by the inmate. Team Member # 10 testified that he is not trained to make an assessment of whether the first protocol drug is working, but that he has spoken with other team members about the signs to observe. He also noted that in the Joseph Clark execution, there was no physical contact with Clark or shouting of the inmate's name after the administration of the first drug, but that the warden now shakes the inmate and calls out the inmate's name after the sodium thiopental is given. There is still no touching of the inmate's eyelashes or the giving of commands designed

to elicit a response from the inmate, Team Member # 10 explained. The team leader also testified that the warden's post-Clark practices of touching and calling to the inmate are not in Ohio's written protocol.

Team Member # 10 testified that it was part of his duties to assess whether there is a problem with the drugs during the execution. He explained that he focuses on the line used and that he looks for infiltration around the IV site. Team Member # 10 stated that he did not know how many inmates' IV sites had been covered up during an execution and that he could not see during the Clark execution whether the IV site was fine because he could not see above the site due to the inmate's clothing. He also testified that he has never observed an infiltration and that he has not been provided training as to what to look for other than what the medical team members had told him.

In further addressing the Clark execution, Team Member # 10 recounted that Clark was conscious at the beginning of the process in the death chamber, that he watched as Clark's arm was massaged following the problem with the first IV line, and that while they worked on Clark, the inmate had closed his eyes, raised his head and appeared to try to speak, and then put his head back down. Team Member # 10 testified that Clark was making some sounds—described as a “dull moan”—as if the man were trying to speak but could not say words. The team leader also stated that he watched the massaging of Clark's arm and was told that massaging the area might cause Clark to experience an uncomfortable burning sensation. Team Member # 10 testified that he would rely on Former Team Member # 18's testimony as to whether Clark was then capable of being aroused. He also explained that he did not know which stage of the drug administration process Former Team Member # 18 was at when the curtain was closed, which was

approximately four minutes into the execution. After about forty minutes of working on Clark—he was told that Clark was stuck with needles nineteen times—Former Team Member # 18 ultimately found a new IV site, Team Member # 10 testified, and the process was restarted using that site. He explained that the new site was on Clark's right forearm, lower and more to the side than the prior site, and that he could not see the site when they restarted the execution, although the warden could. Team Member # 10 stated that to his knowledge, it was not discussed whether proceeding with only one site was prudent. In every execution prior to Clark, he explained, there had been two sites and no infiltration.

Team Member # 10 additionally testified that during an execution, there is always saline running through all the IV lines. He explained that he can hear when sodium thiopental is pushed through the line because it makes a distinctive sound, and he stated that the drug has a milky white appearance. Team Member # 10 also testified that he did not know whether he was present for any execution in which Former Team Member # 18 had switched lines. He stated that he believed that any switch should be recorded on the timeline record of the execution, but noted that the written protocol does not mandate such reporting.

When asked whether he knows whether any team members take medication, Team Member # 10 stated that he does not and that he thinks that he is not allowed to inquire. He also testified that he does not know the criteria for selecting medical team members other than the requirement that they be certified to administer drugs. The witness additionally stated that he does not have the authority to make changes in the execution process, but that he could make suggestions to the warden who could then discuss the proposed changes with his own bosses and legal counsel. Team Member # 10 testified that he would recommend postponing an execution

to the warden if the inmate were in severe discomfort.

In later testimony, the team leader stated that after the Clark execution, he had voiced concerns over the amount of people who were in the death chamber and over the perceived time pressure that existed in that execution. He testified that he had also voiced concerns at times over the comfort of the medical team members, which had resulted in their receiving softer cushions to sit on when they were starting the heparin locks, and going from a high pressure to a low pressure flush of the lines. There had also been discussion of the need to roll up an inmate's sleeves to allow better viewing of the IV site, Team Member # 10 testified, although he stated that he does not know who raised the issue.

Team Member # 10 testified that he thinks it is important that the inmate is unconscious during the execution and that there are steps he takes to ascertain unconsciousness that are not in the written protocol. He stated that it does not make a difference to him whether the steps or procedures in this regard are in the written protocol. Team Member # 10 also testified that he would not wait until a procedure was in the written protocol to incorporate it into the execution process if the procedure had been approved by the warden. He stated that he takes it seriously that it is his responsibility to ensure that an inmate is executed humanely and that he would not participate in the process otherwise.

4. Stephen Huffman

Former Warden Stephen Huffman was next called by Biros to testify. He was the warden at SOCF from 1997 through 1999 and was warden during the Wilford Berry execution in February 1999 when Ohio resumed its executions. Huffman indicated that the execution team was already in place when he became the warden. He reviewed the file on each member when

he became warden. No one was replaced.

The former warden recounted the steps taken to reinstitute the execution procedure in Ohio. Huffman had many discussions with the Ohio Attorney General's office and the Governor's office concerning the protocol. He traveled to Indiana and shadowed a warden in Indiana during an execution. Huffman met with DRC directors, assistant directors, and deputy directors to review the policies and procedures. Huffman indicated that he had no formal training on the three-drug protocol but that he did practice with the execution team. Huffman's function on the team as warden was to give the signal to begin the injection of drugs and to observe the inmate throughout that process. He testified that he would look for regurgitation and snoring. In the Berry execution, because he was a "volunteer," a stopcock was inserted in the intravenous lines to stop the injection of drugs if Berry changed his mind at the last second.

Huffman left as the warden and became the DRC deputy director. In that capacity, Huffman was involved in twenty-three executions. He was present at the Joseph Clark execution in May 2006. Huffman believed that the process had progressed into the second syringe of the first drug when inmate Clark indicated that the drugs were not working. Huffman testified that the inmate appeared to be in and out of consciousness when the team began to look for a new injection site. Clark said something about just giving him something by mouth to complete the execution. Then, Huffman indicated, the inmate became unconscious and thereafter a vein was found that was thought to be sufficient to complete the process. A catheter was inserted, the process started over, and the inmate was executed.

Huffman testified that he believed that Former Team Member # 18 was originally selected to be on the team by the Central Office. The former warden observed Former Team

Member # 18 during rehearsals as well as during executions. Huffman testified that he had no special concerns regarding Former Team Member # 18. Huffman confirmed that any team member could obtain professional assistance if needed or requested.

Finally, the former warden described the death chamber. Huffman estimated the tubing length to be eight to ten feet from Former Team Member # 18 to the inmate. He believed that this much tubing was needed because the bed in the chamber was arranged in such a fashion so that the witnesses could see.

5. James Haviland

James Haviland testified that he had been the former warden of SOCF for approximately thirty-nine months. During this period of time, he explained, he had overseen fourteen executions, with the last being the execution of William Smith.

When questioned about the training he had received to prepare for these executions, Haviland testified that he had spent one day with the former warden and the execution team. He explained that he had received no training on the drugs utilized in the three-drug protocol and no training on the detection of consciousness. In later testimony, Haviland stated that the team leader had no better training than the warden.

Haviland explained that during executions, he would stand behind and at the right shoulder of the inmate while the team leader would stand at the inmate's head. He stated that he viewed his role as making sure that the execution process was carried out. Haviland testified that he neither employed a tactile stimulus test on the inmate during the execution nor did he call out the inmate's name. He stated that his observations as a layperson were enough to determine whether the inmate was experiencing pain.

In response to questioning concerning Former Team Member # 18, Haviland testified that because Former Team Member # 18 is the “expert,” the former SOCF warden left the medical aspect of the execution to him. Haviland stated that he believed Former Team Member # 18 had sufficient training to carry out his role in the execution process and that the team member has full and complete discretion over the speed at which the protocol drugs are administered, which IV line to use, and if and when to switch lines. He also testified that once during an execution—Haviland could not remember which execution—the former warden had observed a bump on an inmate’s arm at the IV insertion point. Haviland stated that he had assumed that Former Team Member # 18 had switched the line used because the bump did not get bigger. The former warden testified that after the execution, Former Team Member # 18 had told him that there had indeed been a switch during the administration of drugs because Former Team Member # 18 had felt pressure when pushing a drug through the first line.

During another execution, Haviland testified, he had observed approximately three-and-one-half minutes of twitching by an inmate. Haviland stated that he thought the twitching was odd, but that he did not do anything to address it such as consulting Former Team Member # 18. Haviland testified that he was later told that the twitching was probably involuntary muscle twitching, although he could not recall who had told him that information.

Haviland also testified that he cannot say that any of the fourteen inmates executed under his watch were sufficiently unconscious so as not to experience pain. He noted that in the case of the inmate referenced above, he had not observed the inmate grimace or wince. The inmate had snored and had turned blue around his lips, Haviland testified. Haviland testified that from conversations and from what he had read in the paper, he knew that the second and third protocol

drugs could cause pain. If he had felt that the drugs were not working, Haviland testified, he would have walked to the death chamber door to signal Former Team Member # 18 of the problem.

When the questioning turned to mental health issues, Haviland testified that from his practical experience in the “people business,” he has experience in reading how people deal with stress. He stated that he had never observed signs from Former Team Member # 18 that led him to inquire into the team member’s mental health or treatment. Haviland explained that there were no specific mental health diagnoses performed on the team members, but that there was a mental health psychology supervisor on the team. When asked whether it was that individual’s duty to assess the team members, Haviland answered that it was not. Haviland stated that he did not know Former Team Member # 18 well outside his being a member of the team and that he did not know about any mental health diagnosis involving Former Team Member # 18. Haviland testified that he thought that issue was relevant and that it would be good information to know. Although he had thought about the stress on Former Team Member # 18, Haviland explained, he did not do anything other than ask the team member how he was. In response to a hypothetical, Haviland stated that if he had known about Former Team Member # 18’s depression or thoughts of suicide, he would have talked to the member’s supervisor and looked into the issues. Finally, Haviland stated that the certification of the team member was what mattered and that no active medical service was required to serve on the execution team.

6. Edwin Voorhies

Edwin C. Voorhies, who was the warden at SOCF from 2005 until 2008, testified next. Voorhies testified that he holds associates, bachelors, and masters degrees; that he began

working for the DRC in 1994 and is presently the warden at Noble Correctional Institute; and that he has never had any medical education or training. Voorhies further testified that he accessed a copy of the execution protocol upon accepting appointment as warden of SOCF because he knew that one of his responsibilities in that position would be overseeing executions. The execution of Herman Dale Ashworth in September 2005 was the first over which Voorhies had presided as warden at SOCF. Prior to that, Voorhies had attended the execution of William Smith, over which former warden James Haviland presided. Voorhies had observed the Smith execution from the equipment room and had no duties whatsoever. Leading up to the Smith execution, Voorhies also met with Haviland and attended all four rehearsal sessions by the execution team. In all, Voorhies presided over ten executions during his tenure. After he left as warden of SOCF, he oversaw two more executions in an “incident command” role from the command center. He did so, he testified, to provide some experience and continuity because the team for those executions included a new warden and several other new members.

Voorhies confirmed that although he undertook no additional formal education or training prior to the Ashworth execution, beyond what he had done leading up to the Smith execution, he did take such actions as engaging in administrative oversight, examining Ashworth’s case to determine any dynamics unique to Ashworth that might arise, and attending Ashworth’s clemency hearing. Voorhies explained that Ashworth’s status as a “volunteer,” or someone who had elected to forgo legal remedies that were otherwise available to him and to allow his execution to go forward without challenge, required additional steps or safeguards in the execution process. Specifically, as Voorhies testified, the two IV lines running from the equipment room to the heparin locks inserted in the volunteer’s arms required an additional

“stopcock” within reach of Voorhies in the event that the volunteer decided at the last minute to stop the execution and avail himself of the legal remedies still available to him. Voorhies further explained that each of the two IV lines are not only marked clearly with “L” and “R,” but also identified prior to the execution as to which will be the “primary” line into which the drugs would initially be injected and which will be the “secondary” line to which the executioner would switch in the event that a problem arose with the primary line. Voorhies testified that at least one rehearsal leading up to the Ashworth execution included a practice of Voorhies stopping the execution at the last second.

Voorhies also confirmed that the execution team had in place a contingency plan in the event that Ashworth exercised his right to stop the execution at the last second. That contingency plan involved Former Team Member # 18 calculating how much of the drugs had been administered to Ashworth and the dispatching of emergency services to engage in any life-saving measures required, assisted by the “medical” members of the execution team if necessary. Regarding the dispatching of emergency medical services, Voorhies explained that every DRC prison, including SOCF, has an emergency response system in which emergency medical personnel can reach any site within the prison in no more than four minutes and that every DRC prison, including SOCF, practices that emergency response on a regular basis. Voorhies conceded that no particular “life-saving” equipment was on hand for the Ashworth execution, that the medical team member who was a phlebotomist had no “life-saving” training of which Voorhies was aware, and that the contingency plan that he had described was not written in Ohio’s execution protocol. That said, Voorhies testified that the same contingency plan was in place for all executions, minus the additional stopcock.

Voorhies testified that it was the warden's responsibility to fill any medical team and security team vacancies on the execution team. On that point, Voorhies testified that he, his deputy warden, and the team leader would screen any applicants and then, assuming the applicant was to fill a vacancy on the security team, the name of that applicant would be provided to the remaining members of the execution team to secure their approval. According to Voorhies, any applicant receiving a majority of votes would still have to be approved by the entire execution team. Voorhies explained that the process for screening applicants for the execution team included a review of job performance evaluations, attendance records, training records, and any disciplinary actions against the applicant. Voorhies also explained that he would look for in any applicant good communication skills, experience in a maximum security facility, and a sense of empathy for the inmate. Voorhies confirmed that he had never removed anyone from the execution team.

Voorhies then explained that he was the first SOCF warden to develop a written application process for applying for a position on the execution team and that he did so after educating himself about the *Morales* method-of-execution litigation in California. In this regard, Voorhies testified that he undertook a great deal of self-education concerning the execution process because he did not take lightly the responsibility of overseeing executions. He explained that he studied the various method-of-execution cases being litigated around the country, as well as the three drugs that Ohio uses in its protocol. He testified that he learned everything he could and then shared it with everyone he could. Voorhies stated that he used the information he learned as a benchmark for possible improvements in Ohio's protocol. He agreed that none of the efforts he undertook were mandated by the DRC. The changes that occurred to

Ohio's execution process during his tenure as SOCF warden, according to Voorhies, included placing a checklist in the holding cell of items and duties related to the insertion of heparin locks in the inmate's arm, modifying the signaling system employed between the warden and executioner during the administration of the drugs, and preparing and having ready a second dose of sodium thiopental. Voorhies also testified about certain changes in the current version of the written protocol that include the labeling of the syringes, using a continuous low pressure saline drip rather than an injected saline flush between the three drugs, and specifying that the warden and the team leader will observe the injection sites for signs of infiltration.

Voorhies testified about the change in Ohio's protocol that took place prior to his tenure at SOCF, calling for the insertion of the heparin locks to take place in the holding cell rather than in the execution chamber. Voorhies explained that a "legal intervention" had made it necessary for witnesses to be able to view the process of inserting the heparin locks. He explained that the holding cell is equipped with a camera that transmits images to monitors not only in the equipment room but also in the witness rooms that are adjacent to the execution chamber and separated by a wall with windows. It was decided, Voorhies testified, that the medical team members tasked with inserting the heparin locks would feel less pressure if they could perform their duties in the holding cell instead of in front of the witnesses. Voorhies conceded that any concerns about the heparin locks being dislodged while the inmate is walked from the holding cell to the execution chamber had been discussed and accounted for during rehearsals. To that point, Voorhies testified that no inmates during his tenure were taken from the holding cell to the execution chamber by force and that the only execution involving an inmate (Lewis Williams) who put up "passive resistance" by not supporting his own weight did not compromise the

integrity of the heparin locks.

Voorhies testified about the process of implementing changes to the written version of the protocol. He explained that any proposed changes would be discussed and then proposed to the director. If the director was in agreement, the changes would be written into the protocol and then ultimately signed by the director. At that point, Voorhies testified, the written protocol becomes administrative law pursuant to Ohio statute. Voorhies agreed that anything that is not specifically written in the protocol does not have to be followed.

Voorhies also testified in detail about the executions of Joseph Clark and Christopher Newton; Voorhies presided over both. Regarding Clark, Voorhies recounted that he went to the holding cell and read the death warrant to Clark, then went to the equipment room to ensure that the monitor was operating, and then returned to the holding cell to see how the medical team members were progressing with the insertion of the heparin locks. Voorhies recalled that the team had found a site in Clark's left arm for the first heparin lock in a reasonable amount of time, but were not able to find a site in the other arm for another heparin lock. Voorhies testified that the medical team member who had successfully inserted the lock in the left arm assured Voorhies that the site was strong and had a good flow. Voorhies then briefed the director, who agreed with Voorhies and the medical team that it would be fine to proceed with the execution with only one site (even though the preference was to obtain two). That decision made, Voorhies testified that the team then escorted Clark from the holding cell to the execution chamber and secured him to the execution bed. After giving Clark the opportunity to make a final statement, Voorhies then signaled to the equipment room by buttoning or adjusting his jacket to begin the administration of the drugs. Voorhies recounted that Former Team Member #

18 activated a red light from the equipment room to signal back to Voorhies that Former Team Member # 18 had started the drugs. Voorhies testified that, absent that signal, he typically would know from observing the inmate that the drugs had begun, but that he would not be able to determine from observing the tubing whether the drugs had begun.

Voorhies testified that he knew what to expect in the way of an inmate's reaction to the administration of the sodium thiopental and that he was not seeing signs from Clark that the administration of the first drug was rendering Clark unconscious. Voorhies testified that the team leader had made the same observation. Voorhies stated that as he proceeded to look for any indications that the drug had leaked, such as wet spots or drops on the ground, Clark lifted his head and said that the drugs were not working. At that point, according to Voorhies, the team leader closed the curtain on the window between the execution chamber and the witness rooms. Voorhies testified that the only indication that he had that Clark had received any of the first drug was that Clark's speech was slurred. Voorhies stated that as the team leader closed the curtain, Voorhies noticed that the injection site in Clark's arm was raised, indicating an infiltration. Voorhies remarked that the injection site had been partially concealed by the sleeve of Clark's smock and that the problem has since been corrected, insofar as the strap down team now rolls up the inmate's sleeves to the upper biceps. Voorhies did not believe, however, that that change was part of the written protocol.

Voorhies reiterated that the execution team had practiced in rehearsals a scenario involving infiltration during the administration of the drugs before and after the incident with Clark. Voorhies explained that other possible areas for injection sites included the lower forearm, the top of the hands, the feet, and the ankles. Returning to the Clark execution,

Voorhies testified that once the team leader had closed the curtain, Voorhies summoned medical team members back into the execution chamber to search for new injection sites. Voorhies recalled observing Former Team Member # 18 on Clark's left side, massaging the injection site in an effort to alleviate the infiltration blockage. Voorhies thought that it would be possible for the first drug to be absorbed by Clark through the tissue, but Voorhies thought that any such absorption would be slow. Still, Voorhies stated, he assumed that must have happened with Clark, due to the fact that Clark kept drifting in and out of consciousness during the time period that the medical team members were searching for new injection sites. Voorhies clarified that it was primarily Team Member # 17 and Former Team Member # 18 who were looking for new injection sites on Clark. Voorhies was unable to recall how much time elapsed from the time that the team leader had closed the curtain until the time that the curtain was reopened and the execution resumed. Voorhies described the scene as intense, but testified that he was struck even now by the professionalism and compassion that he observed on the part of everyone involved. In that regard, Voorhies recalled that there were "several" people in the room during the incident, but that most of them stayed back and out of the way. Voorhies testified that he, too, tried to stay out of the way and that it was primarily Former Team Member # 18 leading the process of trying to locate new injection sites.

Voorhies testified that he did not know how many times Clark was "poked" during the process. He testified that he focused during the incident on observing Clark and that Clark was unconscious during most of the incident. Voorhies could not recall observing anyone attempt to locate a site in Clark's neck, but he thought he recalled seeing an attempt to access a site around Clark's collarbone. Voorhies also recalled observing a security team member squeeze Clark's

right bicep, but Voorhies did not know who instructed the security team member to do that.

Voorhies testified that he recalled seeing the same security team member holding Clark's head and chin at one point at the direction of Former Team Member # 18. Voorhies confirmed his belief that the team had exhausted and disposed of its supply of the rubber tourniquets usually used in the process of administering IV sites; he was not able to say how many total they had had. Voorhies testified that he had no idea how much of the first drug Clark had received, but that Clark was unconscious and respirating slowly during most of the incident. Voorhies testified that it was his understanding from his studies that an inmate who received 25 % of the amount of sodium thiopental that Ohio's protocol prescribed would reach a surgical plane of anesthesia. Voorhies testified that Clark was never unstrapped during the process, except along his lower arms so that the team could look for injection sites.

Voorhies testified that he did not know whether Former Team Member # 18 had ever switched from the primary to the secondary lines once an execution had begun and that Voorhies would not be able to see that. Voorhies stated that he did not remember Former Team Member # 18 ever discussing having done so.

Voorhies testified that, following the Clark execution and in conjunction with various court cases that Voorhies had reviewed, Voorhies implemented the use of a second signal by the warden to the executioner to ensure that the second drug, pancuronium bromide, would never be administered until the warden signals to the executioner to do so. Voorhies explained that, following the Clark execution, the "signal" process consisted of the warden buttoning or adjusting his jacket as a signal to the executioner to begin the administration of the first drug, the executioner turning a red light on to indicate to the warden that the administration of the first

drug had in fact begun, and the executioner turning the red light back off to indicate that the first drug had been administered in its entirety, which should, according to Voorhies, coincide with when the warden and the team leader should see clear signs of unconsciousness in the inmate. Voorhies continued testifying that (presumably upon ensuring that the inmate was unconscious) the warden would then signal to the executioner, again by adjusting his jacket, to trigger the saline flush, after which the executioner would turn the red light back on to indicate to the warden that the administration of the second drug had begun. Voorhies testified that no additional signals were employed or necessary after that because the execution process would have reached “the point of no return.”

Voorhies confirmed that he was aware that Former Team Member # 18’s day-to-day activities did not involve medical responsibilities. Voorhies also testified that it was probably Team Member # 17 who had advised Voorhies that the one site that the team had originally accessed on Clark in the holding cell was strong and that it would be okay to proceed with the execution with just that one site. Voorhies testified that although Team Member # 17 was trained and certified to administer drugs, Voorhies was not aware whether Team Member # 17 ever had.

With respect to the execution of Christopher Newton, Voorhies testified that the team knew at the outset that they would have difficulties locating injection sites on Newton. Voorhies explained that they were aware of the problems they might face due to changes they had made in the process for assessing sites and potential problems. Explaining that changes in the process also included planning for breaks for the medical team members and the inmate if the process for locating and accessing injection sites became prolonged, Voorhies testified with respect to

Newton that the team found and accessed one injection site very quickly, but took a great deal of time to find a second site. Voorhies testified that during the time that the team sought a second injection site, the team used saline drips on the first site to verify the continued viability of that site. Voorhies further testified that, during the process, Newton remained light-hearted and even joked with the team members. Voorhies confirmed that he observed the process the entire time.

Voorhies testified that he had never received any additional formal training in the execution process beyond what he had learned from former warden James Haviland and from attending the execution team's rehearsals. Voorhies confirmed his understanding that Ohio, in implementing a lethal injection protocol, had "imitated" Oklahoma and Texas, and that it was probably the DRC director who had made that decision.

Voorhies testified that Former Team Member # 18 served in the role of executioner because he always had. Voorhies further testified that Team Member # 17 was trained and available as a back-up in the event that Former Team Member # 18 was unavailable. Voorhies testified that in the event that a last minute problem rendered Former Team Member # 18 unable to make it to an execution, Voorhies' plan would have been to have Team Member # 17 fill the role as executioner with supervision from a member of the SOCF medical staff, mostly likely the registered nurse who served as the health care administrator and who was responsible for obtaining and delivering the drugs, as well as overseeing the drug mixing. Voorhies also testified that this particular scenario had never been rehearsed. Voorhies testified that it was his understanding that Team Member # 17 required that supervision because he was licensed as only an intermediate EMT. Voorhies also testified that he was not aware that Former Team Member # 18 had at some point let his EMT certification drop to that same level. Voorhies testified that

he had the team leader annually check the certification of the medical team members and that he himself had done so once in response to a specific request from officials related to or otherwise monitoring method-of-execution litigation in California. Voorhies testified that, in addition to those steps, he relied on execution team members to “self-report” any relevant changes in their qualifications.

On cross examination, Voorhies testified that the last time he had checked the Ohio statute to determine what level of certification a medical team member was required to have to administer drugs without any supervision was when he had been warden at SOCF. He further testified that although it was his understanding that an intermediate EMT would require some sort of supervision to administer some or all of the drugs used in the execution process, he could be mistaken. Voorhies further testified that it was routine for him (and presumably for other similarly situated supervisors) to rely on those they supervised to self-report relevant changes in their qualifications or employment status.

Voorhies also testified during cross examination regarding his understanding that his expertise and knowledge about executions were widely known around DRC. On that point, Voorhies testified that he has always been willing to assist or offer input in any way that DRC might request and that DRC has in fact requested his assistance and advice concerning executions. Voorhies explained that any order given by the warden overseeing an execution would be binding, even if it were not written in the protocol, unless it was a direct and obvious violation of something in the written protocol. Voorhies also explained that if he ever had any ideas or changes to suggest for the written execution protocol, his procedure would be to first discuss those with the chief legal counsel and then ultimately propose them to the DRC director.

That said, Voorhies explained, if there were any changes that he felt were necessary, he would not wait for those to be written into the protocol before implementing them in the actual execution process. He testified that Ohio law, to his understanding, afforded him that latitude. In response to questioning, Voorhies stated that he was unaware whether making formal changes to the written protocol, as opposed to implementing changes in custom and practice, would have legal consequences such as “re-starting” the statute of limitations on any legal challenges to a given written protocol.

Voorhies agreed on cross examination that during the execution of William Smith, which Voorhies had attended in an observational role only, Voorhies witnessed from the equipment room and had the opportunity to observe Former Team Member # 18 carry out his duties as the executioner. Voorhies also agreed that prior to the Smith execution, Voorhies had had the opportunity to observe Former Team Member # 18 during four rehearsals leading up to the execution. Voorhies explained that the execution team conducted two to four “run throughs” per rehearsal. Thus, Voorhies confirmed, he had observed Former Team Member # 18 on many occasions and had had many conversations with Former Team Member # 18. Voorhies testified that typically, because Former Team Member # 18 did not live near SOCF, Former Team Member # 18 would stay in a local hotel the night before an execution. Voorhies also testified that he always spoke to Former Team Member # 18 the night before and immediately following every execution (presumably those over which Voorhies presided). Voorhies testified that he had been in an “excellent position” to observe Former Team Member # 18 and all of the execution team members in terms of their ability to handle stressful situations. Voorhies testified that he had had no concerns “whatsoever” regarding Former Team Member # 18’s

ability to carry out his duties during and in relation to an execution.

Voorhies testified that a medical team vacancy on the execution team would be filled not only by posting an internal notice but also by consulting with the chief medical commander in an effort to broaden the search pool beyond SOCF. Voorhies stressed that anyone he selected to fill a medical team vacancy would be required to have proper certification but would also have to possess the qualities that Voorhies previously testified that he preferred in execution team members, such as good communications skills and empathy for the inmate and execution process. Voorhies testified that he would also look at how frequently that person actually engaged in medical responsibilities. Voorhies testified that he had discussed with Former Team Member # 18 his experiences as a paramedic and that he knew that Former Team Member # 18 was not an “active” paramedic. Voorhies also testified that at one point, based on his studying of other method-of-execution cases, he had arranged for one of the medical team members on the execution team, who was already a phlebotomist, to undertake additional training concerning the administering of IVs. Voorhies also arranged for security team members to be trained on the administering of IVs.

Voorhies confirmed on cross examination that he knew what “infiltration” was and what outward signs would indicate an infiltration. Voorhies also testified as to his understanding that the person administering the drugs would know that an infiltration was happening by feeling pressure while trying to administer the drugs. Voorhies confirmed that he knew it was necessary for the first drug to work in order for the execution process to be painless for the inmate. Voorhies testified that he knew that the administration of the second and third drugs would cause pain to the inmate without proper administration of the first drug. Voorhies also testified that he

was confident that all of the members of the execution team had the same foundational understanding.

Voorhies testified that following the Clark execution, medical team members had conveyed to him that they had felt undue pressure to find injection sites within a certain time frame. As a result, according to Voorhies, the protocol was changed to reflect explicitly that the members tasked with finding and accessing IV sites were to take as much time as they needed. Voorhies confirmed his understanding that, technically, the execution team would have fourteen hours (from the 10:00 a.m. start time) within which to complete the execution. When asked whether he would consider stopping and postponing an execution due to difficulties causing delay, Voorhies answered that his inclination would have been to have taken a break and then resume, as was rehearsed for and then done in connection with the Newton execution. Voorhies further testified that if, after a longer delay, the medical team members reported to Voorhies that they could not find any injection sites, the decision of whether to continue with or postpone the execution would not be made by Voorhies alone; rather, it would be made after much consultation with others, although Voorhies did not specify whom. Voorhies confirmed, however, that postponement is and would have been an option.

Voorhies continued to testify to various questions on cross examination. With respect to the Clark execution (and specifically the delay while the medical team members looked for new injection sites in the execution chamber), Voorhies testified that he never saw signs that Clark was experiencing severe pain. Voorhies also testified that a “cut-down” procedure, to his understanding, involved physically exposing a vein in order to gain access to that vein. He testified that Ohio’s protocol did not provide for use of a cut-down procedure in the event of

difficulty accessing veins through the traditional IV process. Voorhies indicated that he was aware that other states were explicitly moving away from or forbidding cut-down procedures, and that he himself refused to endorse the process after reviewing Virginia's protocol.

Voorhies also testified that there were a variety of safeguards in place during an execution to ensure that all legal challenges were complete (and concomitantly, to allow for any last minute legal reprieves to stop an execution). Voorhies explained that Ohio's protocol provides for a 10:00 a.m. start time (as opposed to the midnight start time it once had) in order to make it easier for legal challenges to be pursued, completed, and communicated to those responsible for carrying out the execution. Voorhies also testified that a variety of communications lines are employed immediately prior to and during an execution. Voorhies explained that the DRC director would be on a telephone line with the Governor's office, that the DRC assistant director would be on a telephone line with the Ohio Attorney General's office, and that the DRC regional director would be on a land telephone line with "others" and would also have a cell phone.

Voorhies testified that he had never requested medical or psychiatric records of the execution team members that he supervised, that he believes such records were confidential, and that he would never request those records absent obvious signs from a team member of possible problems. To that point, Voorhies confirmed that he has also supervised other special units, teams, crisis situations, and the like, and that it was never routine for him to inquire about subordinates' medical or psychiatric conditions absent signs of problems. Voorhies testified along these lines that the security protocol in place for those prison staff members who require medications during their shifts ensures that all medications can be accounted for, but uses a

“coding process” for identification of medications to ensure confidentiality of medications that prison staff members are taking. Finally, Voorhies testified that he believed “absolutely” and “unequivocally” that executions in Ohio are carried out in a humane, quick, and painless fashion and that he would not participate in them if they were not.

Voorhies denied that it would be “important” for him to know that the execution team member responsible for administering the drugs had a medical condition requiring narcotic medications if that person were not exhibiting any problems. To that point, Voorhies denied that he would wait for an “incompetent act” first on the part of such a subordinate before inquiring into the possibility that a medical or psychiatric condition, or the medications required to treat such a condition, might be interfering with the person’s ability to perform his duties. Voorhies testified that in addition to routine observation of team members (and other subordinates), he would rely on team members to “self-report” any such problems. Voorhies testified that he believed that he would be within his rights to ask about team members’ medical or psychiatric conditions, but that he would not. He agreed that team members could agree to answer any such questions, even if perhaps they were not obligated to do so. Voorhies then testified yet again that he chose not to ask such questions, that he based that decision on his experience as an administrator, and that he had not consulted with anyone in making that choice.

Voorhies also testified on redirect examination that it was his understanding that the SOCF warden tasked with supervising executions was required to follow Ohio’s written protocol. Voorhies agreed that the warden would not be required to “follow” anything that was not expressly written in the protocol. Voorhies testified that it was his understanding that Ohio law provided “wide latitude” to the SOCF warden (with respect to the matter of taking whatever

steps might be necessary but not spelled out in the written protocol). Voorhies stated that he believed that the decision as to what was or was not included in the written protocol stemmed from “measured consideration” as opposed to a concern about whether inserting new written provisions had the effect of re-starting a statute of limitations on legal challenges to the execution protocol.

Voorhies also testified on redirect examination that he believed that the SOCF warden could order a cut-down procedure in the event that the medical team members could not access the condemned inmate’s vein through the traditional IV process because Ohio’s written protocol did not expressly prohibit cut-down procedures. Voorhies confirmed his understanding that phlebotomists do not start IVs but only draw blood. Voorhies also testified, with respect to the Clark execution, that he had had no specific time frame or time limit in mind for accessing injection sites or completing the execution. Rather, he testified that the determination of whether or for how long to continue trying was informed by an “ongoing assessment of the circumstances.” Voorhies agreed that he had had concerns about the fact that Former Team Member # 18 always served as the executioner, that he spoke to Former Team Member # 18 regularly as a result of those concerns, and that Voorhies was of the understanding that Former Team Member # 18 had always declined the crisis intervention team assistance that was made available to him and all execution team members. Finally, Voorhies testified that following the Clark execution, he had spent twenty to twenty-five minutes “debriefing” with all three medical team members.

7. Dr. Daniel Badenhop

Dr. Daniel Badenhop testified that he has treated Former Team Member # 18 since 2001

for various conditions, including his psychiatric care since 2002 after Former Team Member # 18 told him that Dr. Baumgartner had retired. In reviewing his medical reports since then, Dr. Badenhop recounted both what he has observed of Former Team Member # 18 and what he has prescribed for him. He noted that in addition to suffering from depression throughout his treatment, Former Team Member # 18 has also showed signs of agitation, stress, anxiety, and bipolar disorder, a disease which Dr. Badenhop defined as mood swings between mania and depression. He stated that Former Team Member # 18 told him that he was the state's executioner. Dr. Badenhop mentioned that although he did not know whether the job was stressful, he kept it in mind.

With respect to his treatment, Dr. Badenhop testified that although he has primarily treated Former Team Member # 18's depression and anxiety with Effexor XR, he has also prescribed Elavil, Cymbalta, Xanax, and Valium for Former Team Member # 18 for similar conditions over brief periods. In addition, Dr. Badenhop recalled that he has prescribed to Former Team Member # 18 Oxycontin for back pain, Seroquel for anger issues, and Geodon for insomnia, among other medications. Dr. Badenhop mentioned that although Former Team Member # 18 stopped taking Effexor XR for one week in March 2005 and for the two weeks leading up to his May 6, 2005 visit, Dr. Badenhop stated that he was not concerned that Former Team Member # 18 would go without depression or anxiety medication for such short periods. Dr. Badenhop finally testified that his current treatment for Former Team Member # 18's depression and anxiety involves only Effexor ER.

8. Dr. Richard Baumgartner

Dr. Richard Baumgartner, a psychiatrist, testified that he had intermittently treated

Former Team Member # 18 between 1997 and December 2001 after Former Team Member # 18 complained of dysthymia, a low-grade and long-standing depression. However, Dr.

Baumgartner stated that he believed that Former Team Member # 18 was actually suffering from work stress associated with problems he had with the prison administration and inmates, as well as his desire to work another shift. Dr. Baumgartner asserted that he had no knowledge that Former Team Member # 18 was either a paramedic or a member of the execution team.

In recapping the Attending Physician Statement associated with a request for disability leave that he had signed, Dr. Baumgartner testified that Former Team Member # 18 had exhibited symptoms of depressed mood, withdrawn behavior, and suicidal ideation and lacked concentration, motivation, and interests. Dr. Baumgartner also noted that Former Team Member # 18's diagnosis was converted from dysthymia to major depression, recurrent and moderate, as defined by the Diagnostic and Statistical Manual of Mental Disorders ("DSM"). He further testified as to whether Former Team Member # 18 suffered from Bipolar II. The doctor noted that under the DSM, a person with Bipolar II must have a history of at least one major depressive episode and one hypomanic episode. Indicating that Former Team Member # 18 had never shown these symptoms, Dr. Baumgartner testified that he did not believe Former Team Member # 18 suffered from Bipolar II.

Additionally, Dr. Baumgartner identified Former Team Member # 18's medication during this period, including Prozac, Buspar, and Effexor XR. The doctor also testified that Former Team Member # 18 had stopped taking his medication in October 2001, claiming that his symptoms had returned and that he had overdosed on his medication. However, Dr. Baumgartner disputed the alleged overdose and stated that he re-prescribed the medication.

Finally, the doctor testified that in June 2002, Former Team Member # 18 stated that he intended to obtain his medication from his family doctor and would no longer require Dr. Baumgartner's services. Contrary to Former Team Member # 18's testimony, Dr. Baumgartner asserted that he had not retired from his practice and that he had never told Former Team Member # 18 that he planned on doing so.

9. Phillip Kerns

Phillip Kerns, who assumed the position of SOCF warden in March 2008 and still holds that position, testified next. Kerns testified that he holds associates and bachelors degrees and that prior to becoming warden at SOCF, he was warden of Oakwood Correctional Facility and before that, deputy warden of the Toledo Correctional Institute.

Kerns confirmed that he had had no experience with executions prior to becoming warden at SOCF. Kerns testified that in September of 2007, he met with his predecessor, Edwin Voorhies, for an entire day, not just to train for executions, but also to learn about his other duties as SOCF warden. Kerns estimated that he and Voorhies spent an hour and a half discussing the execution process. Kerns testified that he had not met or trained with anyone else concerning the execution process and that he had Voorhies "walk through" the execution practices for Kerns' benefit. Kerns testified that he has supervised two executions during his tenure as SOCF warden, those of Richard Cooley and Gregory Bryant-Bey. Kerns testified that the next execution (of Brett Hartmann) was scheduled for April 7, 2009.⁴ Kerns also testified that the execution team had already completed its four rehearsal sessions for the Hartmann

⁴ On March 31, 2009, the United States Court of Appeals for the Sixth Circuit issued an order staying Hartmann's execution in connection with Hartmann's application for leave to file a second or successive habeas corpus petition.

execution, having conducted those rehearsals on each of the last four Mondays. Kerns clarified that the last rehearsal had been just two days prior to his testimony, on Monday, March 23, 2009, and took approximately one hour.

Kerns confirmed that he had never had any medical training, training on the administration of IVs, training on the administration of the three drugs used in the execution process, or training on assessing the effects of those drugs. Kerns then testified about his general understanding that the first drug was the anesthetic, the second drug was pancuronium bromide, and the third drug was potassium chloride. Kerns stated that the first drug was intended to induce sleep in the inmate and that what Kerns had observed was deep snoring and slowed breathing from the inmate. Kerns testified that he would also shake the inmate's shoulder and call out the inmate's name to confirm that the first drug had had its intended effect. Kerns stated that he had observed those two signs and taken those two measures in the two executions that he had supervised. Kerns testified that he had learned about these observations and techniques from his training with Voorhies. Kerns confirmed that no monitoring equipment or tools were used in the executions that he supervised to assess whether the first drug had had its intended effect.

Kerns explained his understanding that the second drug stops respiration by paralyzing the lungs and muscles. Kerns testified that he had heard that the second drug would be painful if administered without anesthesia. Kerns also testified, however, that he would not know what to look for from the inmate to determine whether the inmate was suffering from the administration of the second drug. Kerns opined that there would not be any way to ascertain whether the second drug was causing the inmate pain because Kerns relied on such "movements" as the inmate's snoring and respirations to assess the effect of the first drug, movements that

presumably would cease following administration of the second drug.

Kerns also testified that the third drug stops the inmate's heart. When asked whether he thought that the third drug would cause pain if administered without anesthesia, Kerns answered that he did not know. Kerns explained that he did not know how he would be able to ascertain whether the inmate was suffering from administration of the third drug.

Kerns testified that it was the team leader who was in charge of the execution rehearsal sessions. Kerns explained that the current team leader has been the team leader for a number of years. He stated that the team leader organizes and runs the rehearsals and that a rehearsal session lasts approximately two hours. Kerns confirmed that during an execution, only the warden and the team leader are in the execution chamber with the inmate.

Kerns testified that a new execution team member, Team Member # 17, had practiced as the executioner for the upcoming April 7, 2009 execution. Kerns clarified that Team Member # 17 had practiced in that role in the last two rehearsals and that Former Team Member # 18 had practiced in that role in the first two rehearsals. Kerns testified that the reason for the change was that Former Team Member # 18 would be retiring within a few months and Kerns thought that Team Member # 17 should start practicing to assume the duties of administering the drugs. Kerns explained that Former Team Member # 18 had informed Kerns four weeks ago, before the first rehearsal for the April 7, 2009 execution, of his intention to retire. Kerns did not think that anyone had asked Former Team Member # 18 to retire or that Former Team Member # 18 had chosen a firm date for his retirement. Kerns confirmed, therefore, that Team Member # 17 would administer the drugs for the Hartmann execution and that Former Team Member # 18 would be present in the equipment room observing. Kerns testified that Team Member # 17 has

already served as the executioner for one execution.

Kerns testified that he was aware that Team Member # 17 and Former Team Member # 18 were intermediate EMTs and that he had seen their certification papers. Kerns explained that his understanding was that as intermediate EMTs, Team Member # 17 and Former Team Member # 18 were authorized to insert IVs and to administer the execution drugs with supervision. Kerns testified that he was aware that Team Member # 17 is a qualified, experienced, and practicing EMT. Kerns testified that for the most recent execution of Gregory Bryant-Bey, Former Team Member # 18 had served as the executioner and also had inserted one of the heparin locks. Referring to Joint Exhibit 3, the timelines generated during the Cooley and Bryant-Bey executions, Kerns testified that the timelines are generated in “real time,” with a narrator in the equipment room reporting constant updates on a telephone line to the SOCF command center, where another staff member types the information directly into the computer that generates the timeline. Kerns also testified that the staff member typing the information would have someone over his or her shoulder proofreading as the staff member typed.

Kerns testified that following the United States Supreme Court’s *Baze* decision, he actually recommended adding to the protocol measures he as warden should take to ensure that the inmate was unconscious from the administration of the first drug before allowing the executioner to begin administering the second drug. Referring to an exhibit (Pl.’s Hrg. Ex. 12), the current version of Ohio’s execution protocol, Kerns agreed that the measures he had proposed for affirmatively assessing the inmate’s unconsciousness were not included in the written protocol. Kerns specified that the measures he recommended consist of shaking the inmate’s shoulder from the inmate’s right side, where the warden would be standing, and calling

out the inmate's name. Kerns testified that the measures did not include brushing the inmate's eyelashes or checking his pupils. Kerns further testified, in response to a question about whether he would examine whether the inmate was sweating, that he did not know what sweating would mean.

Kerns stated that he was aware that two established injection sites are required and that both would have a constant flow of saline once the IV lines were inserted. Kerns also testified that none of the rehearsal sessions he had attended included the executioner switching from the primary line to the secondary line. Kerns agreed that the executioner would have the discretion to make any such switch, but testified that the warden or the team leader also could make that decision. Kerns testified that in the event it became necessary to switch from the primary line to the secondary line once the execution process had begun, his preference would be to start the process over rather than just resume from the point where the process had paused. Kerns agreed, however, that the written protocol did not require or address that matter. Further, Kerns admitted that during deposition testimony he had given, he testified that he would not necessarily start the process over in the event that it became necessary during the course of an execution to switch from the primary line to the secondary line. Kerns testified that he had never actually witnessed an infiltration but that Voorhies had trained Kerns on what to look for to detect an infiltration. Kerns agreed that paragraph 8, sub-part d of the current written protocol provides that both the warden and the team leader will monitor the injection sites for signs of an infiltration.

Kerns testified that, in the event that both the primary and secondary lines failed, he would employ "good common sense" for determining how long the process of searching for new viable injection sites should go. He agreed that neither the written protocol nor custom and

practice specify a particular timeframe or time limit for establishing new injection sites in the event that both initial lines fail. Kerns further testified that the DRC director and governor ultimately would make the decision whether to postpone an execution due to difficulties in establishing viable IV sites. Kerns testified that he was not aware whether the director or governor would have a firm timeframe or time limit in mind and that he assumed that the medical team members would advise the director and governor on that matter. Kerns stated that he believed that fourteen hours would be too long. Kerns also testified that he believed that the director would have the authority above and beyond that of the warden to make the decision.

Kerns testified that the SOCF health care administrator, who is a registered nurse, delivers the packages of execution drugs to the equipment room and then witnesses the mixing of the execution drugs there. Kerns also testified that the health care administrator would remain in the equipment room during the execution. Kerns was admittedly unsure, however, of that assertion and could not remember whether the health care administrator remained in the equipment room for either the Cooley or Bryant-Bey executions. He did testify that the health care administrator never attended any of the execution rehearsal sessions in which Kerns had participated. In later testimony, Kerns stated in response to a question whether Team Member # 17 had ever practiced mixing the drugs that Team Member # 17 had on one occasion mixed the drugs for an execution, but that mixing the drugs was not something that the execution team practiced during the rehearsal sessions.

Kerns testified, in response to questions about a "central line," that he was not familiar with the term. Kerns also testified that he did not know whether the protocol placed limits on where injection sites could be established on an inmate's body. Kerns testified that during

execution rehearsal sessions, they had practiced only using “preferred” IV sites. Kerns stated that one of the medical team members, Team Member # 9, was a trained phlebotomist. He agreed, however, that aside from executions, Team Member # 9 did not perform the process of establishing IV sites on a regular basis or as part of her routine duties. Kerns testified that for the April 7, 2009 Hartmann execution, Team Member # 9 and Former Team Member # 18 would be establishing the IV sites. Kerns also testified that he did not believe that Former Team Member # 18 administered IV lines on a regular basis or that Former Team Member # 18 performs medical duties in his day-to-day job function. Kerns testified that Former Team Member # 18 had told Kerns that he had administered one IV over the past two years during an EMT run. In response to questions whether it would be important to Kerns to have known whether Former Team Member # 18 or the medical team members performed medical duties on a routine basis, Kerns answered that such information was not important for him to know because determinations concerning the suitability of the medical team members to serve on the execution team had been made prior to Kerns assuming the position of SOCF warden. On that subject, Kerns admitted that he had never checked the status or type of the certifications of any of the medical team members and that he did not know whether anyone reviews or confirms medical team members’ certifications.

Kerns stated that he understood the function of the second drug was to paralyze the inmate’s lungs. Kerns admitted that he did not know whether the inmate’s death could or would be achieved without the use of pancuronium bromide. Referring to an exhibit (Pl.’s Hrg. Ex. 2), Kerns testified that he was familiar with the *Rivera* decision out of Lorain County in Ohio that, among other things, criticized the inclusion of pancuronium bromide on the grounds that it

served no necessary function in the execution process. Kerns testified, however, that no changes had been made to Ohio's protocol to meet the various requirements set forth in the *Rivera* decision because it would be up to the DRC director, rather than Kerns, to make any necessary changes. Kerns explained that he had not been involved in any discussions about switching Ohio to a single-drug protocol, as required by *Rivera*, and that he had no idea whether using a single-drug protocol was feasible.

When asked about anything else that the execution team does in connection with the execution process that it not specified in the written protocol, Kerns responded that the team employs a "vein light" in the holding cell to assist with locating and establishing the catheters. When asked why changes, such as shaking the inmate's shoulder to assess his level of unconsciousness, have not been formalized in the written protocol, Kerns answered that the execution protocol is not updated regularly. Kerns went on to testify, however, that the execution protocol was coming up for review soon and that he intended to recommend inclusion in the written protocol of the changes that the execution team already made or planned to make, such as the medical team members using a "vein light" in the holding cell and the warden shaking the inmate's shoulder to assess the inmate's level of unconsciousness. Kerns reiterated that the DRC director has the final say on what goes into the written protocol. Kerns was not aware of what changes may have been made to the protocol after the Clark execution. When asked why the written execution protocol had not been updated since October 2006, Kerns opined that it was because executions were just resuming again and not because of any concern on the part of the State about re-starting any statute of limitations on legal challenges to Ohio's execution protocol. When asked whether changes will be made to the protocol to address issues

in connection with switching from the primary line to the secondary line once the execution process has begun, such as whether the executioner should completely start the process over or simply resume the process from the point where it paused, Kerns testified that he did not know, but that he thought any changes concerning those issues had been made already following the Clark execution.

Kerns began his testimony on cross examination by answering questions concerning the sequence of steps taken by him and by other members of the execution team once the administration of the drugs has begun. When testifying about the steps he would take to confirm that the inmate was unconscious following the delivery of the first drug, Kerns stated for the first time that in addition to shaking the inmate's right shoulder and calling out the inmate's name, Kerns would pinch the inmate's wrist. Kerns also testified for the first time that he would nod his head as his signal to the executioner in the equipment room to begin the delivery of the second drug. Kerns further mentioned for the first time that he would stop the execution from proceeding if it appeared to him the first drug might not be having its intended effect on the inmate. At that point, according to Kerns' testimony, he would call in the medical team rather than immediately direct a switch from the primary line to the secondary line. Kerns testified that he did not think, under that scenario, that the executioner would exercise discretion to switch from the primary line to the secondary line and continue the delivery of the drugs (or begin to deliver the second drug absent an affirmative signal from the warden to do so). Kerns went on to testify that execution team members are required to follow the warden's directives during an execution regardless of whether the directives are or are not included in the written protocol.

When asked how he would go about filling vacancies on the medical team, Kerns

answered that he would review all employment records of any candidate and that he would expand his search beyond SOCF. Kerns somewhat qualified his answer to that hypothetical question when he mentioned that Team Member # 17 already has suggested to Kerns two DRC employees certified as EMTs who are interested in joining the execution team.

Kerns testified that based on the two executions he has supervised, he believes that Ohio carries out executions in a humane fashion. Kerns agreed that he would not participate if that were not the case. Kerns stated that he knows how to spot an IV infiltration, including recognizing that the first drug is not having its intended effect of rendering the inmate unconscious. Kerns reiterated his understanding that the first drug is intended to render the inmate unconscious and that it is necessary for the first drug to be administered properly in order to avoid executing the inmate in an inhumane fashion.

Kerns agreed on redirect examination that it is “vitally important” to assess whether the inmate has been rendered unconscious by the delivery of the first drug. Kerns acknowledged that the people tasked with making that determination are laypeople, but Kerns testified that he saw no need to recruit an expert to take over that responsibility because it had been obvious to him during the two executions he had supervised that the inmates were unconscious. Kerns agreed, however, that it might be prudent to utilize an expert to make that determination and that doing so would be yet another safeguard. Kerns later testified on re-cross examination, however, that it was his understanding that medical professionals are prohibited from participating in executions, including assessing the level of the inmate’s unconsciousness. Kerns also later testified on further redirect examination that he did not know whether other states used medical professionals during executions. Kerns answered that he did not think he would recommend

including in the new written protocol the change that has been incorporated in custom and practice requiring the warden to give an affirmative signal to the executioner in the equipment room before the executioner may begin administering the second drug.

Although Kerns answered that he had no intention of conducting a mental health screening for potential execution team members beyond simply talking to them, Kerns then admitted that it would be important to him to know whether the executioner had a diagnosed mental illness. Kerns then suggested, in light of that acknowledgment, that he might consider some sort of mental health screening for potential execution team members, such as putting to use the mental health training that he received in connection with his employment at Oakwood Correctional Facility or having a mental health professional attend interviews of execution team candidates. When pressed whether he would want someone diagnosed with bipolar disorder serving as the executioner, Kerns answered that he would want to know that information and that, if it were the case, he would watch the executioner “closely.” Kerns even answered that he might consider requiring execution team members to disclose any diagnosed mental illnesses and making such a requirement part of the written protocol. Kerns went on to caution, however, that a diagnosed mental illness, if treated properly, does not automatically limit what a person can or should be permitted to do. Using a diagnosed mental illness to disqualify someone from serving on the execution team or as the executioner, Kerns opined, would be discriminatory. Kerns concluded his testimony on redirect examination by agreeing that there were no requirements either in the written protocol or in custom and practice for monitoring the mental health of execution team members.

On re-cross examination, Kerns testified that he would always make every effort to

determine whether members of the execution team were “fit” to perform those duties. Kerns answered that he did not think there were any legal restrictions on his ability to inquire into a candidate’s mental health conditions. Although Kerns confirmed that he was familiar with confidentiality of medical information afforded to people by HIPPA, Kerns still did not believe that he would be limited from legally asking general questions to assess the mental health condition of any candidate for the execution team.

Following up on the issue of whether conducting any sort of mental health screening might violate a candidate’s right to confidentiality or privacy, Kerns agreed that participation on the execution team was voluntary. That being so, Kerns agreed, it might be possible to require as a condition for serving on or even interviewing for the execution team that the candidate agree to release records or answer questions concerning his or her mental health.

10. Former Team Member # 19

Former Team Member # 19 is an Ohio corrections officer. He testified that he joined the execution team in 1998, that the Wilford Berry execution in 1999 was the first execution in which Former Team Member # 19 had participated, and that Former Team Member # 19 had left the execution team following the Christopher Newton execution.

Former Team Member # 19 testified that he has been certified as a phlebotomist since 1995 and explained that phlebotomists essentially obtain blood samples. Former Team Member # 19 testified that, as a prison phlebotomist, his daily duties include the collection of blood, urine, feces, and other bodily samples from inmates to send out for various tests. Former Team Member # 19 explained that the requirements to become certified as a phlebotomist include completing a certain number of “sticks,” attending certain training sessions, obtaining a certain

level of knowledge about anatomy, and passing a test. Former Team Member # 19 testified that maintaining the certification does not require any sort of annual continuing education, but does require paying an annual fee to the Association of Clinical Pathologists. Former Team Member # 19 did not know whether DRC requires him to maintain that certification.

Former Team Member # 19 testified that prior to the Wilford Berry execution, his daily duties did not involve the regular administration of IVs. Thus, according to Former Team Member # 19, the SOCF health care administrator gave Former Team Member # 19 “hands on” training one month prior to the Berry execution. Former Team Member # 19 estimated that he started four to six IV lines prior to the Berry execution and confirmed that he had never started an IV prior to that. Former Team Member # 19 further explained that two or three of those were IV lines that he had started to help nurses in the prison infirmary.

Former Team Member # 19 testified that he took part in twenty-six consecutive executions and that he did so every time as a member of the medical team. He testified that his duties involved starting IV sites and ensuring that the team had all of the materials they might need, such as needles, syringes, gauze, tourniquets, and saline. Former Team Member # 19 answered in response to a direct question that he never started an IV without using a tourniquet. Former Team Member # 19 went on to testify that for an execution, there are always two medical team members to start the IV sites, one person for each of the inmate’s arms. Former Team Member # 19 testified that the preferred site for starting an IV is the “antecubital area” of the arm (the crease inside of the arm) and that the team never initially started an IV site anywhere else on the inmate’s body. When asked whether the team had ever started an IV site in an inmate’s hand, Former Team Member # 19 testified that he did not believe so. Former Team

Member # 19 went on to testify that the execution team participated in rehearsal sessions once a week for four weeks leading up to an execution and that each rehearsal session consisted of two or three practice “runs.” Former Team Member # 19 testified that medical team members always practiced starting IV sites on a medical “practice arm,” never on a live person. Former Team Member # 19 estimated that he has administered fewer than thirty IVs in his entire career.

Former Team Member # 19 testified that once or twice over eight years or so, the team member responsible for starting the other IV site opposite Former Team Member # 19 on the condemned inmate had changed. Former Team Member # 19 testified that he did not know whether any of the other medical team members tasked with starting IV sites were phlebotomists. He testified, however, that he did know that several of the other medical team members, including Former Team Member # 18, were EMTs. Former Team Member # 19 testified that Former Team Member # 18 had perhaps once started an IV site on a condemned inmate opposite Former Team Member # 19, but that Former Team Member # 18 did not perform that function routinely for executions. Former Team Member # 19 confirmed that he understood that Former Team Member # 18 was the team member who administered the drugs for executions.

Regarding the execution procedure, Former Team Member # 19 testified that once he had successfully started the injection sites in the holding cell, he would retreat to J-1, the waiting area where execution team members waited when they did not have duties to perform. Former Team Member # 19 clarified that he had observed two or three executions from the hallway, rather than retreating to J-1, but that he did not have any specific duties to perform that required him to be in the hallway rather than J-1. He testified that he did not observe either the Clark or

Newton executions and that he did not notice anything unusual in the two or three executions that he watched from the hallway.

Former Team Member # 19 testified that once the execution had been completed, his duties included re-entering the execution chamber, removing the IV lines and needles, and cleaning up the body and room as necessary before the body was removed. He explained that in performing those duties, he might routinely take note of the injections sites themselves and clean up a little bit of blood, but that he never observed any signs of trauma to an inmate.

Responding to a series of questions about the Clark execution, Former Team Member # 19 testified that he had waited in J-1 and had noticed nothing unusual during the clean-up following the execution. Former Team Member # 19 went on to recount what he could recall about what occurred in the execution chamber after the only IV site on Clark failed. Former Team Member # 19 testified that he had entered the execution chamber, having been requested to do so by the warden at a security team member's direction. Former Team Member # 19 estimated that there were "a dozen" or so people in the execution chamber trying to figure out what had happened and what to do next. Former Team Member # 19 did not recall hearing Clark speak. Former Team Member # 19 estimated that he was in the execution chamber for fifteen or twenty minutes and that perhaps five to ten minutes had passed before Former Team Member # 19 and the other medical team members reached Clark to work on finding a new IV site. Former Team Member # 19 explained that the IV site he had started in Clark's left arm earlier in the holding cell had "blown," even though, according to Former Team Member # 19's testimony, Former Team Member # 19 had had no difficulty finding, starting, or testing that site in the holding cell. Former Team Member # 19 testified that two other individuals—Former Team

Member # 18 and the health care administrator—had checked the site after Former Team Member # 19 had started it and that, regarding the decision to proceed with the execution with only one IV line, they all had advised Voorhies that the site had been flushed three times and was strong.

Former Team Member # 19 testified that he was not aware whether any other IV sites he had started on any other inmates for executions had subsequently failed. Former Team Member # 19 testified with respect to executions in general that he believed that Former Team Member # 18 was the person responsible for deciding which IV line to designate as “primary” and which IV line to designate as “secondary.” Former Team Member # 19 testified that he had always started the IV line for the inmate’s left arm.

Continuing with the Clark execution, Former Team Member # 19 testified that he had noticed that the area of Clark’s left arm was “purplish” and that Former Team Member # 19 knew that they would not be able to use that area to find another injection site. Former Team Member # 19 testified that he just moved around Clark, equipped with needles and tourniquets, looking for possible injection sites. Recounting that he made two “sticks” in Clark’s right foot and leg, Former Team Member # 19 testified that he had never tried or started IV sites in those locations prior to trying on Clark. Former Team Member # 19 remembered seeing other team members trying to find injection sites on Clark. Former Team Member # 19 testified that he recalled seeing Former Team Member # 18 around Clark’s head checking Clark’s neck area for possible sites, but Former Team Member # 19 did not think that Former Team Member # 18 had ever actually “stuck” Clark’s neck. Former Team Member # 19 also testified that he did not recall seeing anyone holding Clark’s head or chin to assist Former Team Member # 18. Former Team Member # 19 testified that he had heard Clark making “painful noises” off and on during

the entire process and that Former Team Member # 19 found it disturbing.

Former Team Member # 19 further testified that he felt that too many people had been in the room and that the medical team members—Former Team Member # 19, Former Team Member # 18, and Team Member # 17—should have been left to do their jobs. Former Team Member # 19 recalled a little bit of everyone, but particularly then-Director Wilkinson, shouting orders, as well as Wilkinson emphasizing that there was a “timeframe” for finding injection sites and/or completing the execution. Former Team Member # 19 testified that he did not have any particular recollections about what Voorhies was doing during the process. Former Team Member # 19 did recall current Director Collins being in the room and Huffman asking whether the team could find any sites in Clark’s foot. Former Team Member # 19 testified that he thought that Former Team Member # 18 eventually found a site in Clark’s right arm. Former Team Member # 19 agreed that, if hypothetically the inmate had been “stuck” twenty-six times, that would be “a lot.” Former Team Member # 19 testified that after Former Team Member # 18 found the site in Clark’s right arm, Former Team Member # 19 left the execution chamber and returned to J-1.

Former Team Member # 19 went on to testify that the team had discussed the foregoing during their debriefing session following the execution. Specifically, Former Team Member # 19 recounted that they discussed that there had been too many people in the execution chamber and that there had been too much emphasis on a “timeframe” because the medical team members felt rushed in the holding cell to find the initial injection sites and also in the execution chamber to find new sites. Former Team Member # 19 testified that all of the medical team members had expressed frustration. Former Team Member # 19 went on to testify that as a result, DRC made

changes to the protocol emphasizing that medical team members were to take as much time as necessary to find injection sites.

Responding to a series of questions about the Christopher Newton execution, Former Team Member # 19 testified that the execution process had begun as usual with the medical team members entering the holding cell to start two IV sites. Former Team Member # 19 also testified that earlier in the morning, he and the team leader had met with Newton in the holding cell to explain everything that would be happening; Former Team Member # 19 explained that doing so was routine. Continuing with the Newton execution, Former Team Member # 19 explained that although the team fairly easily found and started a site in Newton's right arm, the team had trouble finding a second site. Regarding the difficulty that they were having starting a second site, Former Team Member # 19 testified about some of the changes that the team had implemented to the execution process following the Clark execution. Former Team Member # 19 testified that the medical team members trying to find and start the IV sites used stools instead of kneeling and were reassured that they should take their time and not feel rushed. Former Team Member # 19 testified that Collins reminded the team that they had until midnight to complete the execution. Former Team Member # 19 also testified that during the process of trying to find a second site, Newton was talkative and in good spirits. Former Team Member # 19 testified that the team even took a break at one point to allow Newton to use the restroom. Shortly after taking that break, according to Former Team Member # 19, the team finally found a second IV site.

Former Team Member # 19 testified that after the medical team had established the IV sites and started the IV lines, Former Team Member # 19 went to the J-1 waiting area.

Following the execution, Former Team Member # 19 entered the execution chamber, cleaned up Newton's arms as necessary, and removed the lines and catheters. Then, according to Former Team Member # 19, the execution team conducted its routine debriefing immediately following the execution. It was there that Former Team Member # 19 told the other members that he was retiring from the execution team. Former Team Member # 19 clarified that he had told Voorhies immediately following the Clark execution that he would participate in one more execution and then planned to retire from the team. Former Team Member # 19 denied that he left the execution team because of what had happened during the Clark execution. Rather, according to Former Team Member # 19, he was tired of what he perceived as unwarranted scrutiny not only from officials from the DRC central office, but also from other members of the SOCF prison staff. Former Team Member # 19 testified that he also was tired of what he perceived as a lack of respect from SOCF and/or DRC personnel for execution team members' anonymity and the effect that carrying out executions had on the team members. Former Team Member # 19 concluded his testimony on direct examination by reiterating his belief concerning the Clark execution that it reflected "poor judgment" to have so many people in the execution chamber while the medical team members were trying to find new injection sites.

On cross examination, Former Team Member # 19 confirmed that his "primary" job duties involved accessing veins, even if it was only to draw blood as opposed to administering IVs. Former Team Member # 19 explained that accessing a vein, whether it was for drawing blood or starting an IV, required him to "seat" a needle properly so as not to "blow" or otherwise damage the vein. When asked why officials from the DRC central office or SOCF staff might visit execution practice sessions and/or ask questions about specific executions or the execution

process, Former Team Member # 19 speculated that it was a “chain reaction” of people just being curious or even “nosy.” Testifying that he was aware of the ongoing litigation challenging Ohio’s execution process, Former Team Member # 19 agreed that it was possible that some officials might have visited and asked questions as part of their job. Still, Former Team Member # 19 insisted, many SOCF staff members “just wanted to see.”

Regarding the Clark execution, Former Team Member # 19 testified that it had bothered him to keep “sticking” Clark during the process of trying to find new injection sites. He agreed that he was concerned that the process be humane and insisted that all of the team members involved felt the same way. Along those lines, Former Team Member # 19 testified the execution team cared about ensuring that it carried out all executions in a humane manner. Former Team Member # 19 then reiterated that the only concern he had had about how the Clark execution was handled was the number of people who were present in the execution chamber. Former Team Member # 19 testified that he was aware of various changes that the execution team had implemented in the execution process following and because of the Clark execution.

11. Team Member # 17

Biros thereafter called Team Member # 17 to testify. He has been the backup executioner to Former Team Member # 18 for every execution since 2004, except one in which Team Member # 17 himself acted as the executioner. Team Member # 17 has been a corrections officer at a county sheriff’s office and an employee at a community-based corrections facility, and is presently a corrections officer at a state correctional facility. He received his basic EMT certification and in 1999 or 2000 he received his intermediate EMT certification. He has been a volunteer fireman since 1991 and a paid volunteer EMT since 1987. In his role as an

intermediate EMT, Team Member # 17 is permitted to start intravenous lines and administer drugs intravenously. He regularly starts intravenous lines without supervision while performing his emergency squad duties.

Team Member # 17 testified that he was asked by a warden if he would be interested in being part of the execution team. After some discussion and thought, he agreed to be interviewed for the position. He stated that he was interviewed by Haviland and a deputy warden. They discussed with Team Member # 17 what he was permitted to do with his EMT license, what he did regularly in that capacity, and his disciplinary record; he was then invited to a training session. Team Member # 17 thereafter became a part of the medical team and has functioned in that capacity by inserting intravenous lines and acting as a backup for the executioner in all but the one execution in which he injected the drugs. Team Member # 17 stated that he had received his training on the drug protocol and on how to inject the drugs from Former Team Member # 18. Team Member # 17 has observed the process on several occasions and practiced during the rehearsals. He testified that he was also shown how to mix the drugs by Former Team Member # 18 and that he has mixed them under Former Team Member # 18's supervision.

Team Member # 17 explained what an infiltration is and indicated that he had encountered one infiltration while acting in his role as a paramedic. He testified that he can recognize an infiltration by resistance to the injection and that he is trained to look for bulges under the skin.

Team Member # 17 was asked to explain the injection process. He indicated that the warden gives a signal, Team Member # 17 then turns the light on inside the chamber and begins

the first syringe of the first drug. After the second syringe of the first drug has been injected, he begins a one-minute saline flush and turns the light off. The warden assesses the inmate by calling the inmate's name, pushing the inmate's shoulder, and lightly pinching the inmate. If the warden determines that the inmate is unconscious and if Team Member # 17 agrees, then, after the one-minute flush is complete, the second and third drugs are administered. He indicated that if an infiltration occurred, he would assess the inmate and the injection site and would probably switch to the second line but would start over with the first drug. A backup quantity of the first drug is always mixed for just such a contingency. Team Member # 17 admitted that he was not aware of a plan if there was an infiltration while injecting the second drug.

Counsel questioned Team Member # 17 regarding the Joseph Clark execution. Team Member # 17 testified that he was acting as a standby medical team member during that execution and that he had observed the difficulty the other medical team members were having in inserting the catheters into Clark's arms while in the holding cell. Team Member # 17 was in the equipment room with Former Team Member # 18 during the injection process. Once it was determined that there had been an infiltration and after the curtain was closed, Team Member # 17 entered the death chamber to assist in finding a new injection site. Team Member # 17 testified that he had attempted to get access to Clark's veins but that he did not remember how many times he attempted to gain access to a vein. He stated that Former Team Member # 18 attempted to gain access and that eventually Former Team Member # 18 had found a vein in Clark's forearm that appeared to be sufficient. Team Member # 17 also stated that he heard Clark snoring before the intravenous site was obtained. Team Member # 17 denied that there was any pressure asserted by administrators to get access to a vein and get the process started

again. After the vein access was completed, Team Member # 17 testified, he went back into the equipment room.

On cross examination, Team Member # 17 was asked about Former Team Member # 18's abilities. Including practices as well as during executions, Team Member # 17 estimated that he has witnessed Former Team Member # 18 inject drugs sixty times and stated that he has never observed Former Team Member # 18 deviate from the protocol.

Team Member # 17 admitted that he was not completely certain of the effects of each of the drugs used in the three-drug protocol. He stated that he did not know what effect the administration of the second and third drug would have on an inmate if the first drug was not administered.

12. Former Team Member # 18

Former Team Member # 18 testified next. Although now no longer a member of Ohio's execution team, he was at the time of the March 2009 hearing. He stated that he has been employed by the State of Ohio for thirty-two years. Former Team Member # 18 stated that he began his career in corrections in 1976 as a hospital aid, became an equipment operator in 1978, and became a paramedic in 1980. Former Team Member # 18 testified that he worked as a corrections officer at a correctional institute from 1984 until 1987, and as a paramedic again from 1987 until 2001.

In 2001, Former Team Member # 18 testified, he began working in his current management position in which he does not serve as a paramedic. He testified that although he had made some inquiries into his retirement status with the State and had had non-specific conversations with certain co-workers, including members of the execution team, about the

possibility that he might retire, he had neither made a definitive decision to retire nor informed any supervisors of a definitive intention to retire. Former Team Member # 18 testified that he liked his job and that he felt that he did good work. Former Team Member # 18 stated in subsequent testimony that he believed that his co-workers anticipate that he will retire soon, but he reiterated that he has made no firm decision to retire. As noted, he left the execution team some time after the March 2009 hearing.

Former Team Member # 18 testified that he had been a certified paramedic or EMT from 1980 until 2006. He explained that in 2006, he allowed his certification to lower to an intermediate EMT because he no longer wished to pay the fees or attend the courses necessary to maintain his previous certification level. Former Team Member # 18 testified that he previously had performed paramedic duties on a routine basis as part of his job or through volunteering. Former Team Member # 18 testified that he has worked as a paramedic on a limited, if not almost non-existent, basis since 2001 but has maintained his certification as described above. Former Team Member # 18 went on to describe the requirements for becoming a certified paramedic and agreed that the scope of practice for paramedics is set forth in Ohio Rev. Code § 4765. Describing a paramedic as a “doctor’s hands in the field,” Former Team Member # 18 testified that a certified paramedic can perform any medical procedures as ordered by a physician (or decide whether any ordered procedure is appropriate) and administer a wide variety of drugs. Former Team Member # 18 also testified that some paramedics even work in hospitals, but always technically under the supervision of a doctor.

Former Team Member # 18 reiterated that in 2006, he allowed his certification to lower to the level of intermediate EMT, which involves a lesser scope of practice than that of the

highest level of certification for paramedics. Former Team Member # 18 agreed that there were certain drugs and procedures that a certified paramedic can administer but that an intermediate EMT cannot, such as specific cardiac drugs and cardiac monitoring. Former Team Member # 18 testified that a certified paramedic would be authorized to administer the three drugs used in Ohio's lethal injection protocol under a doctor's orders. Former Team Member # 18 conceded that he has never checked whether an intermediate EMT would be authorized to administer all three drugs without on-site supervision but testified that he trusted his superiors to have made the necessary inquiries and determinations in that regard. Former Team Member # 18 stated that he had verbally informed the SOCF warden at the time (2006) that he had allowed his certification to change to that of an intermediate EMT. Former Team Member # 18 testified that he did not recall whether the warden at that time was Haviland or Voorhies, but stated that whomever it was did ask Former Team Member # 18 whether he would still be authorized to administer the three drugs as when he was a certified paramedic.

Former Team Member # 18 testified that he had joined the execution team in 1993 when he was working as a paramedic. Former Team Member # 18 recounted that he and his partner had inquired of a visiting superior whether emergency medical services ("EMS") providers would be permitted under Ohio law to participate in executions, given that doctors, under Former Team Member # 18's understanding, could not take part in executions. Former Team Member # 18 explained that he had pursued that line of inquiry because he believed that executions should be handled in a professional manner by people trained to perform medical procedures. Testifying that there is a state board that presides over EMS providers, Former Team Member # 18 conceded that he did not actually know what that board's position was regarding the

participation of EMS providers in executions. Former Team Member # 18 went on to testify that some time after he and his partner had asked those questions of the visiting superior, a warden asked Former Team Member # 18 whether he would be interested in joining the execution team. Former Team Member # 18 followed up with a visit to SOCF, he stated, where he was asked again whether he would be interested in joining the team. Former Team Member # 18 testified that he understood that the job would be voluntary (presumably in the sense that he would not be compensated and would be free to leave at his will). Former Team Member # 18 testified that he was also aware of the likelihood that as a member of the execution team, he would be either administering the drugs or starting the IV sites. Former Team Member # 18 stated that he did not know whether or to what extent he may have been called upon to participate in an execution by electrocution, as opposed to by lethal injection; he testified, however, that he had never participated in any rehearsal sessions involving electrocution.

Former Team Member # 18 testified that from 1993 until the Wilford Berry execution in 1999, the execution team was in place, active, and prepared because several condemned inmates during that time period had received execution dates that were ultimately stayed. It was during preparations for the Berry execution that Former Team Member # 18 was designated as the person who would administer the drugs because, Former Team Member # 18 presumed, of his medical training and the length of time that he had been on the execution team. Former Team Member # 18 testified that he was given the choice whether to serve as the “executioner” and that he had agreed to assume the role. Former Team Member # 18 testified, however, that it had not been the “plan” at that time, to his understanding, that he would continue to serve in that role; Former Team Member # 18 recalled discussions of that job rotating among the medical

team members. That said, Former Team Member # 18 explained that he did in fact continue in that role because everyone on the execution team just seemed more comfortable with Former Team Member # 18 as “tried and proven.” Regarding the term “executioner,” Former Team Member # 18 testified that he referred to himself as Ohio’s executioner during his deposition for lack of a better term. He testified that, unbeknownst to him at the time, his wife also once described him as Ohio’s executioner in a resume that she had typed and that circulated intra-departmentally.

Former Team Member # 18 confirmed that he has served as the executioner in all but one of the executions in Ohio since he joined the team in 1993. Former Team Member # 18 testified that Team Member # 17 administered the drugs for one execution and that Team Member # 17 had been trained to do so. Former Team Member # 18 could not recall, however, the execution for which Team Member # 17 had served as the executioner, when it took place, or why specifically Team Member # 17 served in that role instead of Former Team Member # 18. Former Team Member # 18 did recall that the execution was not a “high profile” one. Former Team Member # 18 explained that he could not recall which execution Team Member # 17 had conducted or anything specific about the executions he himself had conducted because he tried not to recall executions and regarded doing them as “just his job.” Former Team Member # 18 denied, however, that the reason that Team Member # 17 administered the drugs for one execution had anything to do with an incapacity on Former Team Member # 18’s part; rather, according to Former Team Member # 18, the team had decided to use Team Member # 17 in that role because Team Member # 17 had been trained and needed or deserved the opportunity to serve in that role.

Former Team Member # 18 testified that he did not regard serving in the role as “executioner” as stressful because he dealt with death and dying on a regular basis through his experiences as a paramedic. Former Team Member # 18 agreed, however, that any time a person does something “unusual” or something that will be “picked to death at a future date,” it is likely to cause a little bit of stress.

Continuing with this line of testimony, Former Team Member # 18 stated that he was not aware of any specific plans for Team Member # 17 to administer the drugs for any future executions because, according to Former Team Member # 18’s understanding, the execution team members simply were more comfortable with Former Team Member # 18 serving in that role because of his experience. Former Team Member # 18 could not say whether he or Team Member # 17 would administer the drugs for the Hartmann execution scheduled for April 7, 2009 (an execution that did not take place); Former Team Member # 18 testified that both he and Team Member # 17 have practiced in that role and that no one had told Former Team Member # 18 for certain whether he or Team Member # 17 will be doing the job. Former Team Member # 18 confirmed that the execution team conducts four rehearsal sessions before each execution and that the team has already completed its four rehearsal sessions for the scheduled Hartmann execution. Former Team Member # 18 testified that it was Team Member # 17 who most recently practiced the role of administering the drugs and that that was done at Team Member # 17’s request. Former Team Member # 18 then denied again that Kerns has told him one way or the other who will be administering the drugs for the Hartmann execution. Former Team Member # 18 testified that he will simply serve in whatever role he is assigned for that execution, whether it is administering the drugs or only starting IV sites and lines. Former Team

Member # 18 testified that Kerns has made comments suggesting that he intended to resurrect the idea of rotating among medical team members the job of administering the drugs.

Returning to the subject of the rehearsal sessions, Former Team Member # 18 testified that he has missed only five or six rehearsal sessions since joining the execution team in 1993. Former Team Member # 18 confirmed that it takes approximately two hours to drive from where he lives and works to SOCF in Lucasville. Former Team Member # 18 testified that he almost always has been the team member responsible for mixing the drugs to be used in the execution, but he explained that the process of mixing the drugs is not practiced during the rehearsal sessions because there are no drugs available for practicing. Former Team Member # 18 clarified, however, that the team somehow practiced the mixing of the drugs in a rehearsal session preceding the Wilford Berry execution so that the team would have the most accurate idea possible of the timeframe in which they would be operating.

Former Team Member # 18 went on to testify that he practiced “pushing” the drugs by injecting the same volume of water or saline that they would use for an execution through syringes, the apparatus, and the IV lines just as he would for an execution, with the lines dumping into a bucket rather than the inmate’s arm. Former Team Member # 18 insisted that the rehearsal sessions are intended to give as accurate a replication of an actual execution as possible and that the primary difference between practicing the administration of the drugs and actually administering the drugs is a lack of resistance that one would sense if one were pushing syringes into IV lines actually inserted in an inmate’s arm. Confirming that the team always starts two IV lines for an actual execution, Former Team Member # 18 testified that most rehearsals involve the administration of drugs through only one IV line. Former Team Member # 18 went on to

testify, however, that the team practiced early on using two lines, again in the interests of trying to prepare the team for every possible “what if” scenario. Former Team Member # 18 estimated that over the past four or five years, the execution team has rehearsed using only one line in an effort to reduce costs.

Former Team Member # 18 clarified that even if the team used only one line for its rehearsal, it would still be possible to practice or simulate with the syringes and apparatus the process of switching from the primary line to the secondary line. Former Team Member # 18 explained that “switching” involves removing the syringe in use from the stopcock leading to the primary line and inserting that syringe into the stopcock leading to the secondary line. Although he could not recall specifically, Former Team Member # 18 estimated that some time within the past two years, the team did practice switching lines.

Continuing on the topic of the execution rehearsals, Former Team Member # 18 testified that the team does practice starting the IV sites and lines. He reiterated that the team most recently conducted a rehearsal session the previous week. Former Team Member # 18 testified that when practicing the process of starting an IV site, the team uses a “practice arm” and practices the entire process of locating a vein and inserting a catheter, rather than just “sticking” a needle. Former Team Member # 18 testified that prior to the most recent rehearsals for the Hartmann execution, he “every so often” practiced starting the IV sites regardless of whether the plan was for him to start IV lines for the upcoming execution and that he had actually done so several times recently. Former Team Member # 18 testified that he had never practiced during a rehearsal session attempting to start an IV site in the neck, but guessed that he might have done so at some point during his EMT training. Continuing on that topic, Former Team Member # 18

testified that he also never had practiced starting an IV site in the feet, but that they might have practiced during a rehearsal at least viewing the inmate's legs and feet. Former Team Member # 18 testified that he was not aware of a training aid, such as the "practice" arm, upon which one could practice starting IV sites in a leg or foot. When asked whether he knew anything about the "subclavian vein," Former Team Member # 18 responded that it was a "central line" (as opposed to a peripheral line) that ran along the clavicle on the right side of the body. Former Team Member # 18 testified that although he received training years ago on accessing the subclavian vein, he did not believe that EMTs received training on that any longer because the subclavian vein is considered a central line, rather than a peripheral line.

Former Team Member # 18 confirmed that rehearsal sessions include discussions about the particular inmate's case, such as any stays or other court proceedings of which the team should be aware, as well as how many and which witnesses might be attending the execution. Former Team Member # 18 explained that other SOCF personnel who are not members of the execution team typically attend such meetings. Former Team Member # 18 agreed that the team might be aware of the inmate's offense, but Former Team Member # 18 also testified that he had never researched on his own the offense(s) for which any particular inmate was to be executed.

Turning to the subject of the three drugs used in Ohio's lethal injection protocol, Former Team Member # 18 testified that the first drug, sodium thiopental, was an anesthetic similar to what would be used to put a patient "to sleep" for surgery. Former Team Member # 18 testified that he knew nothing about the "properties" of sodium thiopental, but that he was under the impression that it was "medium acting." Former Team Member # 18 clarified that "medium acting" would last longer than a local anesthetic but that there are other anesthetics that would be

“longer acting.” Former Team Member # 18 testified that he believed that he had been told that two grams of sodium thiopental, the amount used in Ohio’s lethal injection protocol, would render the average person unconscious for three or four hours. When asked whether just a few cc’s of sodium thiopental would render a person unconscious, Former Team Member # 18 responded that it was possible, that the person would surely feel “some effects” of that amount of sodium thiopental, and that a person rendered unconscious by that amount would be unconscious for only a short time. When asked what effect eight or ten cc’s of sodium thiopental would have on a person, Former Team Member # 18 testified that he did not know because that was outside his training. Former Team Member # 18 confirmed that DRC had not provided him any formal training on the three drugs used in Ohio’s lethal injection protocol and that he had not otherwise received any such training. Former Team Member # 18 also confirmed that he had never received any sort of such training from a physician or anesthesiologist or requested any such training.

Former Team Member # 18 then answered a series of questions about the second drug used in Ohio’s lethal injection protocol—pancuronium bromide, also known as pavulon. Former Team Member # 18 testified that pancuronium bromide was a paralytic agent that paralyzes the smooth muscles, including those that operate the respiratory tract. Thus, Former Team Member # 18 explained, pancuronium bromide does not paralyze organs such as the lungs or heart, but it causes an inmate to stop breathing by paralyzing the muscles that operate the respiratory tract. When asked how pancuronium bromide is used in ordinary paramedic or surgical procedures, Former Team Member # 18 explained that pancuronium bromide, and more commonly its “sister” drug “verset,” often is used to assist an emergency provider or surgeon intubate a person

by rendering that person still. Former Team Member # 18 testified that there would be no outward sign whether pancuronium bromide was having its intended effect, with the exception of the cessation of signs of respiration. Former Team Member # 18 cautioned, however, that in the execution setting, respiration will already have become shallow from administration of the first drug, sodium thiopental. Former Team Member # 18 continued that he did not know of any other signs to watch to determine whether pancuronium bromide was having its intended effect. When asked what purpose the use of pancuronium bromide serves in the execution process, Former Team Member # 18 responded simply that that was the “formula” that someone had selected, that it was used to cease any respiration that was still occurring, and that he did not have enough knowledge to give an opinion whether pancuronium bromide was “necessary” to carry out an execution. Former Team Member # 18 confirmed that Ohio’s lethal injection protocol provides for the use of 100 cc’s of pancuronium bromide and testified that 100 cc’s was “a lot.” He testified that the pancuronium bromide arrives already mixed and that it is necessary only to draw the liquid into the two syringes that will be used during the execution process.

Former Team Member # 18 then proceeded to describe in detail the process for mixing the first drug, sodium thiopental. He explained that the sodium thiopental arrives in a box containing a vial of powder and a vial of liquid. Former Team Member # 18 testified that he mixes those contents by drawing the liquid from a vial into a syringe, dispensing that syringe into the vial containing the powder, shaking that vial until the powder is completely dissolved, and then drawing that mixed solution back into the syringe to be used during the execution process. Former Team Member # 18 explained that the contents of a package are pre-measured, such that one vial of powder is to be mixed with one vial of liquid. Former Team Member # 18

specified that Ohio's lethal injection protocol provides for the use of two grams of sodium thiopental, which amounts to two full syringes.

Turning to the subject of the third drug used in Ohio's lethal injection protocol—potassium chloride—Former Team Member # 18 testified that potassium is an electrolyte that is present already in the human system. Former Team Member # 18 explained that when potassium becomes unbalanced in the human body, it results in such conditions as dehydration or a heart attack. Former Team Member # 18 testified that the amount of potassium chloride provided for in Ohio's lethal injection protocol—100 milliequivalents—is a considerable amount that would never be therapeutic. When asked what purpose potassium chloride served in the execution process, Former Team Member # 18 answered that, from his understanding and training, it will stop all electrical activity in the heart. Former Team Member # 18 testified that if administered alone, without the use first of an anesthetic, potassium chloride would cause death and possibly muscle contractions and cramping. He testified that he had no knowledge whether the administration of that amount of potassium chloride alone, without administration of an anesthetic, would cause pain, although he admitted that he was aware of the argument that it would. Former Team Member # 18 testified that he had never seen signs of pain from an inmate from the administration of potassium chloride.

Former Team Member # 18 went on to testify in detail about the physical set-up of the equipment used in the execution process. Former Team Member # 18 explained that approximately one half hour before the execution, the SOCF health care administrator delivers the drugs to the equipment room in the death house and observes as Former Team Member # 18 mixes the drugs and loads them into the syringes labeled one through five. Former Team

Member # 18 testified that typically the team leader and Team Member # 17 also observe the mixing of the drugs and confirmed that this acted as a safeguard to ensure that Former Team Member # 18 committed no error in the mixing or loading of the drugs into the numbered syringes.

Former Team Member # 18 also explained that following the Clark execution, DRC changed Ohio's protocol to provide for the use of five syringes instead of eight: two syringes of sodium thiopental, followed by two syringes of pancuronium bromide, followed by one syringe of potassium chloride. Former Team Member # 18 explained that prior to the change, the administration of each of the three drugs would be separated by the manual administration of a syringe of saline flush. DRC changed from the manual administration of a saline flush to a constant saline drip, thereby providing for a constant flow of saline and the elimination of three syringes from the process. Former Team Member # 18 explained that instead of manually injecting the saline from a syringe between each of the three drugs, he can now just open the IV line to allow for a constant drip. Former Team Member # 18 explained that once he has loaded the drugs into the syringes, he lays the syringes on the table in front of him, perpendicular to him with the plunger closest to him and the needle pointing away from him and toward the execution chamber. Syringe number one would be all the way on Former Team Member # 18's left and syringe number five would be all the way on Former Team Member # 18's right. In front of those syringes, specifically between the tips of the syringes and the wall of the execution chamber, Former Team Member # 18 places another syringe horizontally that contains an extra gram of sodium thiopental, in case it should become necessary to re-administer some sodium thiopental in the event that an execution stops and then resumes.

Former Team Member # 18 explained in detail that the equipment room where he administers the drugs is adjacent to the execution chamber, separated by a wall with a large window. The table at which he sits, he explained, is right up against the wall with the large window, facing into the execution chamber. In the execution chamber, the execution table to which the inmate is strapped is situated such that the inmate is perpendicular to Former Team Member # 18, with the inmate's feet closest to Former Team Member # 18, approximately five feet away, and the inmate's head farthest away, approximately ten feet away. Former Team Member # 18 went on to explain that as he sits at the table facing the execution chamber, there is a port, or a hole, in the wall to his left through which the two IV lines extend from the injection apparatus into the execution chamber and eventually into the heparin locks in each of the inmate's arms. Thus, as Former Team Member # 18 sits facing the inmate, the line on Former Team Member # 18's left corresponds to the inmate's right arm and Former Team Member # 18 tapes a label on that line designating as "I.R.," meaning "inmate's right." Concomitantly, the line on Former Team Member # 18's right corresponds to the inmate's left arm and Former Team Member # 18 tapes a label on that line designating it as "I.L.," meaning "inmate's left." Former Team Member # 18 testified that those lines are flushed immediately prior to an execution to ensure that they contain no air. Former Team Member # 18 went on to describe the set up of the IV bags and syringes as they are prepared for, and used during, the execution process.

Former Team Member # 18 explained specifically that two IV bags of saline hang, secured in brackets, on the wall in front of him and slightly above his line of vision. Former Team Member # 18 testified that each of the IV bags contains between 500 cc's and 1000 cc's of

saline, which has always been more than enough to complete an execution. Each IV bag is equipped with a line that descends from the bag, down the wall, secured by a clamp, down to the table in front of Former Team Member # 18, where each line is then anchored in a bar on the table. Along the bar anchoring the lines to the table, each line contains its own stopcock into which Former Team Member # 18 physically injects each syringe. Former Team Member # 18 testified that each of the lines or extensions are also clearly labeled near each's stopcock because during the Clark execution, after the new injection site was located and the execution resumed, Former Team Member # 18 for a very short moment grabbed the wrong line when he began administering the drugs.

Former Team Member # 18 testified that each IV line, just below the saline bag itself, contains a "roll-up type clamp" that Former Team Member # 18 can adjust to control the flow of saline from the bag into the line. Those clamps, Former Team Member # 18 testified, are at his eye level. Former Team Member # 18 testified that once the security team members strap an inmate to the execution table and the medical team members insert the IV lines into the heparin locks in each of the inmate's arms, Former Team Member # 18 will open each of the IV lines to allow a steady, slow flow of saline that Former Team Member # 18 described as a "keep open" rate. Former Team Member # 18 went on to explain that whichever line has been designated as the primary line will be opened up a little more, while the line that has been designated as the secondary line will remain at the "keep open" rate. Former Team Member # 18 explained that the medical team members who started the IV sites typically will inform him which of the two sites was the better site and that that site will be designated as the primary site. Former Team Member # 18 testified that when he injects each syringe into the stopcock, he does so at a slow,

steady rate that usually results in the delivery of one cc of drugs per second. In response to a question about what is involved in the event that it becomes necessary to switch from the primary line to the secondary line, Former Team Member # 18 explained that it simply involves unlocking the syringe from one stopcock, locking the syringe into the other stopcock, and then not only loosening the clamp below the IV bag for the secondary line to allow more flow than the “keep open” rate but also closing off completely the former primary line.

Regarding the IV sites, Former Team Member # 18 confirmed that the preferred IV sites are the antecubital areas on each arm (the crease inside of the arm). Former Team Member # 18 testified that it was the “policy,” or custom and practice, of the execution team that dictated that the preferred IV sites were the antecubital regions of the inmate’s arm. He testified that sometimes it becomes necessary to establish sites lower on the forearm, toward the wrist. He estimated that that has been done less than ten times in the executions in which he has participated and testified that other than the Clark execution, it had been three or four years since that alternate site has been used. In response to a question of whether a site had ever been established on an inmate’s hand, Former Team Member # 18 guessed that that may have been done “once or twice.” Former Team Member # 18 denied that injection sites have ever been established in an inmate’s feet, legs, neck, clavicle area, or “axillary” area (armpit). Regarding the subclavian vein, Former Team Member # 18 emphasized again that that was a “central line” as opposed to a peripheral line and that the process and equipment for gaining access to a central line are completely different from those used in the traditional IV process. When asked to identify other central lines in the body, Former Team Member # 18 responded that the internal femoral artery in the upper inside thigh qualifies. Former Team Member # 18 also testified that

he received training early in his EMT experience for accessing central lines but that he believes that EMTs are no longer trained in accessing central lines.

Former Team Member # 18 testified that it is also within his discretion how fast to administer the drugs. He reiterated that he attempts, and practices to attempt, to deliver the drugs at a slow, steady rate of one cc per second. He explained that he administers drugs at that rate “completely by feel” as opposed to using a stopwatch or other timing mechanism. Former Team Member # 18 estimated, therefore, that it takes him approximately eighty seconds to fully deliver the first drug.

Former Team Member # 18 confirmed that it also is within his discretion whether to switch from the primary line to the secondary line during an execution. Former Team Member # 18 testified, albeit with some uncertainty, that some time ago he once switched lines shortly after beginning to administer the first drug because he thought he had noticed swelling at the injection site. He insisted that he made the switch at a point when he had delivered very little of the sodium thiopental—five cc’s at the most or close to a fourth of the way through the first syringe, he estimated—and that he encountered no difficulties or problems in simply continuing with the sequence of drugs after switching to the secondary line. Former Team Member # 18 could not recall whether he announced in the equipment room that he had switched the lines or whether he discussed it during the debriefing session immediately following the execution. Former Team Member # 18 testified, albeit again with some uncertainty, that he believed that James Haviland was the acting warden at the time and that Former Team Member # 18 likely discussed the matter with Haviland. Former Team Member # 18 believed that Haviland also noticed the swelling at the injection site for the primary line and that Haviland asked after the execution

whether Former Team Member # 18 had done something different.

Former Team Member # 18 then answered a series of questions about determining during an execution the inmate's level of unconsciousness. Former Team Member # 18 testified that, based on his thirty years of experience, he simply observes the inmate for any movement and watches the inmate's chest rising and falling, looking for those chest movements to become more shallow. Former Team Member # 18 stated in later testimony that although he would be focusing not only on administering the drugs but also observing the injection site for any problems, if he noticed that the inmate's chest movements became shallow or the inmate's coloring change, Former Team Member # 18 would believe that the inmate was drifting into unconsciousness. Former Team Member # 18 clarified that no one during the execution process monitors the inmate's vital signs as a method for assessing the inmate's level of unconsciousness. Former Team Member # 18 also clarified, however, that during an execution, he is not the one primarily responsible for assessing the inmate's level of unconsciousness. Rather, explained Former Team Member # 18, the warden and the team leader, who are in the execution chamber with the inmate, are primarily responsible for assessing the inmate's level of unconsciousness. He guessed that the acting warden and the team leader would use whatever methods with which they were comfortable for assessing the inmate's level of unconsciousness, such as shaking the inmate or using pain stimuli such as pinching. Former Team Member # 18 stated in later testimony that one might also call out or speak to the inmate to determine whether he was unconscious. Former Team Member # 18 testified that he did not believe that anything further needed to be done to ensure that the inmate was unconscious. Former Team Member # 18 clarified that, prior to the execution of Christopher Newton, the execution team always used

“observation” of the inmate to determine his level of unconsciousness, but that perhaps beginning with the execution of Christopher Newton, the warden and/or the team leader began using the additional measures of shaking the inmate and using pain stimuli to ensure that the inmate was unconscious. Former Team Member # 18 did recall with more certainty that by the time of Gregory Bryant-Bey’s execution, the warden not only shook Bryant-Bey in the shoulder or chest area but also pinched the upper inside of Bryant-Bey’s arm to assess unconsciousness. Former Team Member # 18 could not recall specifically the force with which the warden shook Bryant-Bey, except to say that he was able to see the shaking from his vantage point in the equipment room. Former Team Member # 18 could not recall whether the warden had spoken or called out to Bryant-Bey. Former Team Member # 18 testified that he believed that the warden in that case had done enough to ensure that Bryant-Bey was unconscious. Former Team Member # 18 also testified that he believed that all corrections officers received training generally in determining whether a person is unconscious. Former Team Member # 18 testified that he believes that if anyone (with a vantage point to observe the inmate) noticed a problem or had a question, that person would speak up.

Turning to the subject of infiltration, Former Team Member # 18 defined that as a problem with or blockage at the injection site that almost always results in swelling at the site because the liquid builds up in the tissue instead of flowing into the vein. Former Team Member # 18 testified that because infiltrations are possible any time an IV is administered, it is important to monitor the injection site constantly to ensure that whatever drug is being delivered is having its intended effect. Former Team Member # 18 went on to testify that if an infiltration occurs, it is still possible that some of the drug would disseminate into a person’s system and that

a person would feel some effects of the drug, but that it would not be as direct as if the drug were delivered to the person venously and it would take twenty or thirty minutes for the drug to have its intended effect fully. When asked who, prior to the Joseph Clark execution, was responsible for observing the inmate's injection site, Former Team Member # 18 answered that he was responsible and that Team Member # 17 might also have done so, though not as one of his official duties. Former Team Member # 18 did not believe that the warden or the team leader would observe for infiltration as part of their official duties because they were not medical personnel. That said, according to Former Team Member # 18's testimony, the warden and the team leader would have some awareness of the signs of infiltration from their training and the execution rehearsals, even if they had never received specific training on recognizing infiltration. To this point, Former Team Member # 18 testified that signs of an infiltration might be obvious to even those who had not received specific training and reiterated his belief that if any team member noticed a problem or had a question, that person would speak up.

Former Team Member # 18 continued in his testimony that a person administering drugs intravenously, when watching for signs of infiltration, would observe not only the injection site but also the rate of flow or resistance as he is pushing the drugs. Former Team Member # 18 disagreed that a person administering drugs intravenously would, as a matter of course, touch the injection site as a means for detecting an infiltration. Former Team Member # 18 disagreed that it is his preference or that he viewed it as necessary to be "bedside" when observing for signs of infiltration. Former Team Member # 18 testified that he believes that it is acceptable for him to monitor the inmate's injection site from the equipment room. Former Team Member # 18 agreed that one observing an injection site for signs of infiltration must be able to see the site and the

area around the site; thus, Former Team Member # 18 agreed, the site should not be covered.

Former Team Member # 18 did not believe there was ever an execution during which he could not see the injection site and the area around the site, even before the execution team began the practice of rolling the inmate's sleeves up to his shoulders.

Former Team Member # 18 then testified at length about the Joseph Clark execution. Former Team Member # 18 testified that after mixing the drugs in the equipment room, he proceeded to the holding cell when it became evident that the medical team members were having difficulty finding two IV sites. Former Team Member # 18 recalled that another medical team member, Former Team Member # 1, actually requested Former Team Member # 18's assistance in the holding cell. Former Team Member # 18 testified that he flushed the site that they had established and then assisted in the process of trying to find a second site. Former Team Member # 18 explained that "everyone"—such as the media, the governor, and the "upper echelon" of DRC—had misconceptions about how quickly, or by what time, an execution should be proceeding, due to how efficiently the team had conducted the prior executions. Former Team Member # 18 testified that none of that pressure influenced him that day because of his EMT experience. Regarding the site that the medical team members had established in Clark's left arm, Former Team Member # 18 testified that he tested that site in the holding cell by manually injecting a saline flush. Former Team Member # 18 testified that he even drew back the syringe because a drawback from a "good" site should, but will not always, get a blood return. He testified that he then flushed the site again and asked Clark questions such as whether he was feeling a sensation of fluid, a sting, or coldness—all of which, according to Former Team Member # 18, could be signs that the saline was seeping into the tissue rather than flowing into

the vein. Former Team Member # 18 confirmed that he did not get a blood return from the drawback he performed on Clark. Former Team Member # 18 also confirmed that he believed that the site in Clark's left arm was fine.

Former Team Member # 18 clarified that although he assisted in the process of trying to find a second injection site, he himself never attempted to start a second site. Regarding the "pressure" that the team may have felt to find two sites on Clark, Former Team Member # 18 did not recall any "higher ups" from DRC being in the holding cell, just in the equipment room and the hallway that ran between the holding cell and equipment room. Former Team Member # 18 went on to testify that it was Director Collins ultimately who made the decision to proceed with the execution using just one injection site. Former Team Member # 18 confirmed that Collins had consulted with Former Team Member # 18, that Former Team Member # 18 had stated that he was not uncomfortable going forward with the execution using just one injection site, and that he had in fact recommended proceeding with the execution.

That decision made, Former Team Member # 18 testified that he then proceeded to his position at the table in the equipment room. Former Team Member # 18 testified that Team Member # 17 sat next to him, after Team Member # 17 connected the IV line to the site in Clark's left arm, and that the person narrating observations to the command center was standing behind Former Team Member # 18's left shoulder. Former Team Member # 18 confirmed that it could "be tight" in the equipment room and that Collins, former warden Huffman, and perhaps another DRC director from the central office also were in the equipment room that day. Former Team Member # 18 testified that the SOCF health care administrator was not in the equipment room prior to the commencement of the Clark execution and that she never was present in the

equipment room for executions. Former Team Member # 18 testified that once everyone was in position and the execution was set to begin, he dimmed the track lighting in the equipment room, causing the window separating the equipment room from the execution chamber to function as a one way mirror out of which those in the equipment room could see but through which no one looking toward the equipment room could see those inside. Former Team Member # 18 testified, however, that the lighting as such did not strike him as “dim.”

Continuing with his testimony about the Clark execution, Former Team Member # 18 testified that the warden gave Clark the opportunity to make a last statement, after which the warden signaled to Former Team Member # 18 in the equipment room to begin delivering the drugs. Former Team Member # 18 then began administering the drugs into the line labeled “I.L.” (inmate’s left). As he was plunging the second syringe of sodium thiopental, Former Team Member # 18 testified that he thought he noticed swelling at the injection site on Clark’s left arm and asked Team Member # 17 if he, too, noticed any swelling. Recounting that Team Member # 17 responded that he was not sure whether he saw anything unusual, Former Team Member # 18 testified that Team Member # 17 did not have as much experience as Former Team Member # 18 did. Former Team Member # 18 testified that as he finished the second syringe of sodium thiopental, followed by the syringe of saline flush, he noticed that he was not feeling the pressure or resistance that he should feel from pushing the drugs. Former Team Member # 18 testified that again, he thought he noticed swelling just above the injection site on Clark’s left arm. Former Team Member # 18 testified that he also noticed that Clark was not responding to the sodium thiopental in the manner that he should have been at that point in the delivery process (after the delivery of all two grams of sodium thiopental). Former Team Member # 18 testified

that at that point, he knew in his mind that after completing the manual saline flush, he would signal to the warden and the team leader in the execution chamber that there was a problem and that the team needed to stop the process. In response to questions about whether, in fact, the sleeve on Clark's smock was concealing the injection site, Former Team Member # 18 responded that he was still able to see the infiltration above the crease in Clark's arm at the base of his bicep because the sleeve on Clark's smock was loose. Former Team Member # 18 testified that from his vantage point in the equipment room, he could see up the sleeve even if someone standing at or near Clark's head would not be able to see the site. Former Team Member # 18 stated in later testimony that it was an "odd" infiltration in the sense that he did not feel the additional pressure or resistance that one would feel normally when trying to push drugs into a blocked, or infiltrated, site.

Former Team Member # 18 testified that before Clark raised his head and said that the drugs were not working, Former Team Member # 18 already had signaled to the execution chamber by flashing a light, the switch to which was to Former Team Member # 18's left and slightly up the wall, that he was stopping the administration of the drugs. It was as he was reaching up to turn the switch to flash that light, according to Former Team Member # 18's testimony, that Clark raised his head and the team leader closed the curtain on the window separating the witness rooms from the execution chamber. Former Team Member # 18 testified that he believed that everyone in the equipment room knew at that point that Former Team Member # 18 was stopping the execution process.

Former Team Member # 18 confirmed that if Clark had had two IV lines, which always is the preference, Former Team Member # 18 simply could have switched from the primary line

to the secondary line. Former Team Member # 18 cautioned, however, that he might have prepared and used the spare gram of sodium thiopental because of how far he had gotten through the administration of the drugs when he finally stopped the execution. Former Team Member # 18 also testified that decisions such as that were within his discretion and that in this regard, the written protocol did not specify any requirements or provide any particular guidance.

Former Team Member # 18 picked up with the execution itself by testifying that the infiltration swelling that he observed above the injection site on Clark's left arm was not quite the size of a fist, larger than a half a golf ball, but not larger than a half a baseball. Former Team Member # 18 testified that there was no way of knowing how much of the first drug had actually gone into Clark's body through the venous system and/or tissue. Former Team Member # 18 testified that Clark was not moaning or otherwise indicating that he was experiencing pain. Former Team Member # 18 recounted that after he left the equipment room and entered the execution chamber, he asked Clark whether the injection site hurt and Clark did not answer that it did. Former Team Member # 18 testified that he then proceeded to massage the infiltration in an effort to clear out or otherwise alleviate the build-up of fluid. Former Team Member # 18 confirmed that at some point while the medical team members were in the execution chamber searching for new injection sites, Clark did ask if there was something (a drug) he could just take by mouth. Former Team Member # 18 recalled that Clark was partially conscious the entire time until right around the point that the team finally found and started a new injection site. Former Team Member # 18 did not recall hearing Clark moan or make any sounds indicating that he was in discomfort.

Regarding the process of searching for a new injection site, Former Team Member # 18

confirmed that he did search Clark's neck for a "visible external jugular" as a possible last resort. Former Team Member # 18 also testified that he did eventually "stick" Clark's neck twice, but that he neither asked for nor received assistance from anyone in doing so. Former Team Member # 18 testified that he did not recall anyone holding Clark's head or chin. Former Team Member # 18 mentioned in his testimony that at some point, he did attempt to use a stethoscope as a makeshift tourniquet. Former Team Member # 18 testified that they eventually found and started a site on Clark's lower inside forearm, close to the wrist. When asked how many times medical team members "stuck" Clark while looking for a new injection site, Former Team Member # 18 answered that he could testify only as to the number of times that he stuck Clark, which was three—twice in the neck and once on the lower inside forearm that resulted in a useable site. That said, Former Team Member # 18 testified that the final needle count following the execution produced seventeen or eighteen needles. When asked how many people might have stuck Clark, Former Team Member # 18 testified that the most it could have been was four—Former Team Member # 18, Team Member # 17, Former Team Member # 1, and Former Team Member # 19.

Former Team Member # 18 went on to testify about how many people, to his recollection, were in the execution chamber during the process of trying to find new injection sites. Specifically, Former Team Member # 18 testified that he recalled the following people being in the room: some security team members as a precaution, the warden, the team leader, former warden Huffman, Director Collins, and perhaps the SOCF health care administrator. Former Team Member # 18 testified that he did not recall any of those people shouting out orders or giving directions. Former Team Member # 18 testified, however, that he recalled

asking Huffman at one point whether Huffman saw any possible injection sites and Huffman offering no suggestions.

Former Team Member # 18 testified that he did not recall trying to access the subclavian vein and that he thought it was highly unlikely that anyone tried that site, considering that they did not have the necessary equipment for doing so. Former Team Member # 18 continued in his testimony that he did not recall anyone searching beneath Clark's arms, around the axillary area, for possible injection sites.

When asked how long it took from the time the team leader closed the curtain to the time when the team leader re-opened the curtain and the execution resumed, Former Team Member # 18 testified that it did not feel to him that it had been a long time and that he was "shocked" to learn after the fact that it had been approximately forty minutes. Former Team Member # 18 disagreed that it would have been helpful during that process to have present a physician, nurse, or other medical professional because those individuals, in Former Team Member # 18's opinion, were no better trained than the medical team members when it came to finding and starting IV sites. Former Team Member # 18 also testified that he felt no undue pressure during the process because he has been in higher pressure situations from his EMT experience. Former Team Member # 18 testified that he was not aware of any discussions during the process about the possibility of postponing the execution and continuing it some other day. Former Team Member # 18 testified that he was aware that the team had until midnight of the day of a scheduled execution to actually complete the execution, that there was no reason for the team to feel "time constraints," and that it was acceptable for the team members to take breaks if they encountered difficulties that prolonged the process. He testified that he also was aware that at

some point during the fourteen hours between the 10:00 a.m. start time and midnight, a “higher up” might step in, stop the process, and postpone it to another day. Former Team Member # 18 testified that he was not aware whether Ohio’s written protocol provided for any particular time limits or a timeframe.

Former Team Member # 18 also testified that he does not believe that Ohio’s protocol or custom and practice limit the number of “sticks” the medical team members can or should attempt in trying to start two injection sites. Former Team Member # 18 testified that he did not believe that Ohio’s protocol or custom and practice contain a “back-up” plan in the event that the medical team members cannot find an IV site. Former Team Member # 18 confirmed that neither he nor any of the medical team members are qualified or trained to access non-peripheral sites.

Returning to the Clark execution, Former Team Member # 18 testified that he believed Director Collins made the decision, following the initial failure of the first injection site and the subsequent location of a new injection site, to go forward with the Clark execution. Former Team Member # 18 testified that he was not concerned about resuming the Clark execution with only one IV line because Former Team Member # 18 had started the IV site himself and believed it to be sound. Former Team Member # 18 testified that after starting the site, he did a drawback and obtained a blood return, indicating that the site was good. Former Team Member # 18 confirmed that at some point during the process of searching for a new injection site, they did not appear to have any more tourniquets on hand. Thus, Former Team Member # 18 confirmed, one of the security team members, at Former Team Member # 18’s suggestion per training he had received, squeezed Clark’s right bicep to create the same effect as a tourniquet. Former Team

Member # 18 was not of the view that the security team member had applied so much pressure to have been painful to Clark. Former Team Member # 18 confirmed that when they proceeded with the execution, they completely re-started the three-drug protocol, rather than resuming where they had left off in the administration of the drugs.

Former Team Member # 18 continued his direct examination testimony about the Clark execution by testifying that he did not view the Clark execution as “botched,” just one in which complications arose. He testified that he saw no obvious, outward signs that Clark was experiencing pain. He also testified that even though, when the execution resumed, Former Team Member # 18 briefly began administering the drugs to the wrong line, Former Team Member # 18 caught his error immediately and switched to the correct line before the mistake caused any problems. Former Team Member # 18 testified that he was certain that when he resumed administering the drugs, he began with the sodium thiopental and not the pancuronium bromide or potassium chloride. Former Team Member # 18 emphasized that all of the syringes are labeled clearly and unmistakably. He also insisted that under no scenario would the team ever administer the second drug before determining that the first drug has taken its full intended effect. Former Team Member # 18 remarked that it was clear, before they resumed the execution by starting over with the drugs, that Clark had begun experiencing effects from the sodium thiopental that he did receive both before the site became infiltrated and through absorption by his body of the drugs that had built up in the swollen site. Once they resumed the execution, Former Team Member # 18 testified, they were able to complete it without incident.

Regarding the various versions of Ohio’s written execution protocol, Former Team Member # 18 testified that he does not “track” the changes that DRC makes to the written

protocol. Former Team Member # 18 testified that he did not know whether the written protocol includes the various signals that the warden uses to communicate to the executioner when to begin the delivery of the drugs and that the executioner uses to communicate to the warden when he has begun or completed the delivery of the drugs. When asked whether he has participated in or was familiar with any discussions to change Ohio's lethal injection plan from a three-drug protocol to a single-drug protocol, Former Team Member # 18 answered that he recalled Voorhies mentioning that he had read about the idea and that Former Team Member # 18 was aware that a court proceeding might lead Ohio to employ a single-drug protocol eventually. Former Team Member # 18 testified, however, that it did not make a difference to him. When asked whether he would be more comfortable with a single-drug protocol if there were evidence that the second or third drugs might cause pain, Former Team Member # 18 answered that he would be comfortable with whatever protocol the State chooses.

Former Team Member # 18 also answered a short series of questions about the time lines that DRC creates documenting Ohio's executions. Former Team Member # 18 estimated that the amount of time that passes from the time the warden signals to the executioner to begin the administration of drugs until the time that the executioner completes the administration of the drugs is thirteen to twenty minutes. Referring to a timeline (Pl.'s Hrg. Ex. 110) documenting the Christopher Newton execution, Former Team Member # 18 testified that he could not recall why that execution—specifically, the amount of time that elapsed from the moment that the warden had signaled to the executioner to begin and the moment that the executioner had finished administering the drugs—took longer than the other previous executions. Former Team Member # 18 testified that he did not recall what might have been different about the execution or that the

team encountered any difficulties during the administration of the drugs. With respect to the accuracy of the execution timelines, Former Team Member # 18 agreed subsequently during cross examination that it was possible that the narrator relaying information to the command center might relay information inaccurately because the narrator is so familiar with the process that he might report an occurrence before or after it actually happens.

Former Team Member # 18 testified that from his experience, typically he notices decreases or shallowing of the inmate's respiration and possibly changes in the inmate's color before Former Team Member # 18 even finishes administering the first drug. Former Team Member # 18 denied that he was concerned whether the team allows enough time between the completion of the first drug and the beginning of the second drug because Former Team Member # 18's observations and experiences have acted and will act as a safeguard against the administration the pancuronium bromide before the sodium thiopental fully takes effect.

Turning to personal issues, Former Team Member # 18 testified that no superiors ever asked him to sign a release permitting them access to his medical records, but that he would have done so if they had asked him. Former Team Member # 18 proceeded to confirm that in July of 2000 he requested disability leave. Former Team Member # 18 could not recall specifically how long his disability leave lasted, but guessed that it was two or three months. He also testified that he could not recall taking disability leave for depression before, but knows that he has not taken disability for that condition since. Regarding the diagnoses that Former Team Member # 18 received from several treating physicians, Former Team Member # 18 explained that he had never seen the medical records produced for this proceeding identifying those diagnoses but agreed that those diagnoses must have been what Former Team Member # 18's treating

physicians believed they saw in him. Referring to an exhibit (Pl.'s Hrg. Ex. 105), Former Team Member # 18 confirmed that a treating physician told Former Team Member # 18 that the physician observed in Former Team Member # 18 depression symptoms and accordingly prescribed for Former Team Member # 18 Prozac, Effexor, and Buspar.

Former Team Member # 18 testified that he stopped seeing psychiatrist Dr. Baumgartner and elected to continue receiving psychiatric medications from his general physician, Dr. Badenhop. Former Team Member # 18 maintained that Dr. Baumgartner had told Former Team Member # 18 that the psychiatrist would be cutting back his practice and that Former Team Member # 18 would not really need Dr. Baumgartner's services. Former Team Member # 18 testified that he was "shocked" to learn that Dr. Baumgartner was still practicing.

Former Team Member # 18 confirmed that he has taken Effexor continuously since 2000 and still is taking Effexor, but only Effexor, to treat depression. Former Team Member # 18 explained that Dr. Badenhop has prescribed other anti-depressants, but that Effexor seems to work the best for Former Team Member # 18. Referring to an exhibit (Pl.'s Hrg. Ex. 108), Former Team Member # 18 testified that he could not recall Dr. Badenhop ever telling Former Team Member # 18 that Dr. Badenhop thought Former Team Member # 18 had bipolar disorder. Former Team Member # 18 testified that he believed that if he was ever on Seroquel for bipolar disorder, it was only for a short time. Former Team Member # 18 confirmed that he never told the team leader or any other superior about any psychiatric diagnoses that he had received. Former Team Member # 18 testified that no one ever asked and explained that he never tried to hide it. Former Team Member # 18 also confirmed that he had never availed himself of crisis intervention team services because he never felt a need for those services related to his

participation in executions. Former Team Member # 18 testified that he believes that he informed any physicians who treated him that he served on Ohio's execution team. Finally, Former Team Member # 18 testified that his role as the person who administered the drugs in twenty-seven of Ohio's twenty-eight executions has not, to his knowledge or belief, had any relationship to his psychiatric or medical conditions.

Former Team Member # 18 began his cross examination testimony by confirming that he was a paramedic for DRC from 1987 until 2001, which was when DRC eliminated that position. Former Team Member # 18 then proceeded to recount the various awards and commendations that he has received during the course of his employment with the State of Ohio. Former Team Member # 18 also testified that he encountered many difficult or stressful situations as a paramedic, such as when a co-worker/physician went into cardiac arrest at work. When asked whether he had performed duties under stressful situations, Former Team Member # 18 referenced his experience as a paramedic and asked, "What could be more stressful?" Former Team Member # 18 confirmed that he does not believe that any mental or physical conditions on his part have had any effect on his ability to carry out his duties or stemmed from his service on the execution team.

Former Team Member # 18 testified that he has been in a supervisory position for a long time in various jobs for the State of Ohio. He could not recall anyone expressing any concerns to him about his job performance, except perhaps in 2000 when he requested disability leave. Former Team Member # 18 then testified that he took disability leave in 2000 because he felt at the time that it was necessary. Former Team Member # 18 reiterated that he had never seen any of his medical records until these proceedings. Referring to an exhibit (Pl.'s Hrg. Ex. 105),

Former Team Member # 18 confirmed that the records at issue contained a notation indicating that whatever symptoms the treating physician had observed in Former Team Member # 18 or that Former Team Member # 18 had reported experiencing should improve in four to eight weeks. Former Team Member # 18 testified that those symptoms must have improved because he did not take any additional disability leave.

Former Team Member # 18 then revisited the subject of what happens during the execution process once the inmate makes his last statement. Former Team Member # 18 recounted that following the inmate's last statement, the warden signals to the executioner to begin administering the first drug. Former Team Member # 18 reiterated that several DRC officials inside the equipment room are on telephones in the event that the inmate receives a last minute stay or reprieve. Former Team Member # 18 continued that after he finishes administering the first two syringes of the sodium thiopental, he opens the clamp on the IV line just below the bag to allow for a saline flush for sixty seconds. At that point, he turns a red light off to signal to the warden and the team leader that he has completed delivery of the first drug and that they should check the inmate for signs of unconsciousness. Once the warden signals to the executioner to begin delivering the second drug, Former Team Member # 18 does so and turns the red light back on to signal back to the warden and the team leader that he has begun the second drug. After he finishes administering the second drug, Former Team Member # 18 continued, he opens up the clamp on the IV line just below the bag to allow another sixty-second saline flush. After he allows the sixty-second saline flush, Former Team Member # 18 administers the final syringe. Former Team Member # 18 testified that he then opens the IV line for a final sixty-second flush, announces to the narrator that he has finished administering the

drugs, and turns off the red light one final time. At that point, according to Former Team Member # 18, the team leader closes the curtain on the window separating the execution chamber from the witness rooms. Former Team Member # 18 testified that a physician then enters the execution chamber to determine whether the inmate is dead. If he is, then the physician so pronounces him, the team leader opens the curtain, and the warden announces the time of death. At that point, Former Team Member # 18 testified, the team leader closes the curtain again and the witnesses exit the witness room.

Former Team Member # 18 confirmed that following the Clark execution, DRC changed the execution protocol to replace the manual administration of saline flush syringes with an IV saline flush. Former Team Member # 18 also confirmed that he uses a stopwatch to ensure that he allows a full sixty-second flush from the IV line. Former Team Member # 18 agreed that a full sixty-second flush provides more time for the sodium thiopental to have its intended effect on the inmate. That said, Former Team Member # 18 cautioned, he would never start the pancuronium bromide if he were not certain of the inmate's unconsciousness.

Turning to a series of miscellaneous questions, Former Team Member # 18 testified that Ohio's written execution protocol does not contain a requirement that the person who administers the three drugs be certified or licensed to administer those drugs (in a therapeutic setting). Rather, Former Team Member # 18 testified, the protocol requires only that the person who administers the drugs be trained or certified to administered IVs. Former Team Member # 18 testified that the post-execution debriefing sessions include all of the execution team members, the warden, and the religious "head" of SOCF. Former Team Member # 18 confirmed that he was always aware that the crisis intervention team services were available to him. He

described the debriefing sessions as including the team members inquiring of one another whether each was okay. Former Team Member # 18 went on to describe a variety of occurrences that he observed during executions indicating to him that the sodium thiopental was having its intended effect—such as an inmate who was tapping his hand and then stopped tapping his hand; an inmate who looked up at his family and then lowered his head and closed his eyes; several inmates who appeared to be mouthing prayers whose lips then stopped moving; an inmate who was fingering prayer beads and then stopped; and inmates in general who were engaging in deliberate movements that stopped as the sodium thiopental took effect. Former Team Member # 18 testified that usually it is part way into the second syringe of the first drug when he notices the sodium thiopental taking effect. In that regard, Former Team Member # 18 reminded that considering the length of the tubing, the time when he gets part way through the second syringe is likely seconds after any sodium thiopental actually reaches the inmate.

Former Team Member # 18 confirmed that he has mentioned to co-workers and supervisors, including current SOCF Warden Phillip Kerns, that he has looked into the possibility of retiring. Former Team Member # 18 opined that it was possible that Warden Kerns took it more seriously than Former Team Member # 18 intended, simply because of how much Former Team Member # 18 knew about various retirement scenarios. With respect to the preparations that Kerns has undertaken to ensure that Team Member # 17 is prepared to serve in the role of administering the execution drugs, Former Team Member # 18 testified that that was just prudent because of the possibility that Former Team Member # 18 will be detained at the last minute from making it to an execution and that every warden has prepared for that possibility.

Former Team Member # 18 confirmed that he was aware when he revealed information about his mental and physical health that he could have stopped and asserted privilege or his right to privacy. Former Team Member # 18 went on to testify, however, that he saw no need to do so, that he has nothing to hide, and that he does not believe that any mental or physical conditions he has are related in any way to his service on the execution team. Former Team Member # 18 agreed that the process of participating in these proceedings has been difficult but testified that he believed it would be difficult on anyone and believed that it was part of his obligation and duty to participate in this factfinding process. Former Team Member # 18 concluded by testifying that he feels and always has felt that the execution process should be professional and humane, that that is why he volunteered to participate, and that the executions the team has conducted in Ohio have been professional and humane.

13. Robert Lowe

Robert Lowe testified on behalf of Biros. Lowe represented Christopher Newton and witnessed his execution on May 24, 2007. Lowe recounted that after he met with Newton the morning of the execution, Lowe was then ushered into the witness viewing room and watched the catheter insertion taking place in the holding cell via the television monitor. There was some delay, and because inmate Newton was a “volunteer,” Lowe inquired as to the reason for the delay. He was advised by the legal counsel for DRC that the medical team was taking things slowly and that there was no consideration of a “cut-down” procedure, which would entail cutting the inmate’s arm to insert the intravenous needle directly into a central vein or artery. Lowe indicated that it took the medical team over an hour to insert the catheters into each of Newton’s arms.

Lowe testified that Newton was led into the death chamber. He stated that the security team member who strapped Newton to the bed was shaking as he was attaching the straps. Lowe testified that after Newton gave his final statement, the team leader, who was in the chamber, gave a bewildered look to Voorhies when after the execution process had begun Newton's chin moved. Lowe stated that he had observed the last movement of Newton nine minutes after the last statement was given. The curtain was closed six minutes after the last movement was observed.

On cross examination, Lowe admitted that he may have told the news media that the prison officials had been very kind in keeping him informed.

14. Dr. Mark Heath

Dr. Mark Heath, Biros' expert, testified next. He is an anesthesiologist at Columbia University Medical Center and is board certified in anesthesiology. Columbia University Medical Center is a teaching hospital and Dr. Heath works elbow-to-elbow with residents and fellows on a daily basis. He explained that his interest in the methods of execution utilized by the different states was initially piqued when he heard a broadcast of the Timothy McVeigh execution and became aware then of the drug protocol that was being used. Because he believed the drugs used could be a problem, Dr. Heath testified, he began investigating but could get no answers. Finally, he was called by a Georgia attorney who had heard of Dr. Heath's interest in the three-drug protocol. The attorney provided him with information about Georgia's protocol, Dr. Heath explained, and from there Dr. Heath began accumulating data and information from the various states that perform executions by lethal injection. Dr. Heath stated that he has published articles, reviewed autopsy data, studied the execution protocols, viewed death

chambers, and communicated with Dr. Chapman, who first devised the three-drug protocol.

Based upon Dr. Heath's qualifications, the Court found Dr. Heath to be an expert in the field of anesthesiology and on the methods of execution using the three-drug protocol.

Dr. Heath explained the three drugs used in Ohio's execution. The first drug is sodium thiopental. It is, according to Dr. Heath, a short-acting anesthetic. When given in a small amount the drug can make a person sleepy and when given in larger doses can cause unconsciousness for hours or death depending on the amount given. The second drug administered is pancurium bromide. This drug paralyzes only the voluntary muscles that an individual can control, but does not harm the heart. Although it has no anesthetic effect, it can cause a person to appear tranquil and serene even though the individual would still be able to see, hear, and feel. The third drug is potassium chloride. This drug stops the heart and can cause excruciating pain if no anesthetic is given before its administration.

Dr. Heath explained that both the first and second drugs can independently stop an individual's breathing depending on the dosages. The first drug, sodium thiopental, shuts down the electrical activity in the brain so the brain can not give a signal to draw a breath. A large dose of the first drug can cause death. The second drug, pancurium bromide, has no effect on the brain, but rather stops the muscles from receiving the signal from the brain. If the second drug were given without the anesthetic effect of the first drug, the individual's ability to draw a breath would be stopped and the individual would internally suffocate. If the third drug were administered without anesthesia, the individual would be in terrible, searing pain before suffering cardiac arrest.

Dr. Heath testified that each drug could cause death but the key is the dosage of the

sodium thiopental. He believes that an execution can be accomplished in a humane manner, he stated, but that Ohio's protocol falls far below what he considers to be a humane method.

Dr. Heath testified that one problem with Ohio's protocol is that the people who are performing the execution functions are not knowledgeable about whether an inmate has been properly anesthetized. If an inmate is not properly anesthetized, he explained, the drug can cause suffocation and burning pain. Dr. Heath testified that trained personnel could look for signs such as enlarged pupils, tearing, and sweating, and that instruments should be employed to assist in making that assessment. Dr. Heath advocated the use of an electrocardiogram machine to measure the heart rate, a blood pressure cuff to determine an inmate's blood pressure, and a Bispectral Index ("BIS") monitor that can assess the level of brain activity. Dr. Heath criticized Ohio's method of execution because it does not employ any monitors and because the warden and the team leader have no medical training to look for signs of consciousness. Because drugs sometimes do not do what they are supposed to do, according to Dr. Heath, it is imperative that monitoring equipment be employed to measure the depth of consciousness and heart rate, as well as blood pressure. Dr. Heath explained that because the first drug is short acting, an inmate can fall asleep but then begin waking up a few minutes later when paralyzed by the second drug and then experience pain. He testified that he believes that the methods used by the warden to observe, shake, and pinch are completely inadequate and are only used in a hospital setting to determine if someone is waking up from the anesthetic. Dr. Heath recommended that an EMT be placed in the death chamber and trained to use the brain monitor to measure the depth of consciousness.

Dr. Heath outlined several occurrences that he stated are foreseeable and that could lead

to the inmate being conscious. Included in these scenarios are: a bad batch of drugs, improper mixing, deliberate diversion of drugs, error in delivery of drugs, error in labeling or selecting syringes, leakage in tubing, leakage in the catheter, infiltration, and vein rupture. He testified that errors or malfunctions could always occur. Dr. Heath also criticized the length of the tubing claiming that the person injecting the drugs should be beside the inmate so that the executioner could closely monitor and observe the vital signs. The expert was similarly critical of the personnel involved. He found fault with the fact that the only two persons in the death chamber, the warden and the team leader, are not medically trained and do not understand what they should be looking for and the two medical personnel, Team Members # 18 and # 17, do not understand the drugs and the effect the drugs have on the inmate. Dr. Heath testified that he believed that without the safeguards of properly trained personnel and monitoring equipment there is a substantial risk that an inmate will experience pain during the execution process. Dr. Heath suggested that the protocol could be improved by obtaining a physician to assist and assess, reconfiguring the death chamber where the drugs would be administered in the same room as the inmate thereby providing good visual opportunities and less tubing, employing monitoring equipment with trained and qualified personnel, and employing more than two grams of the first drug.

Dr. Heath also testified that Ohio's medical team lacks the level of skill needed to successfully insert the catheters to gain intravenous access. The medical team members, with the exception of Team Member # 19, do not routinely insert catheters on a day-to-day basis. He also criticized the medical team's lack of knowledge concerning the drugs used.

Dr. Heath advocated the use of a one-drug protocol for executions. He testified that a

massive dose of sodium thiopental would complete the execution within ten minutes. He also stated that a large dose of sodium thiopental would first stop brain functioning and then the heart would stop.

Dr. Heath reviewed Former Team Member # 18's testimony and found it to be in error in certain respects. Dr. Heath criticized Former Team Member # 18's testimony with regard to the muscles that the pancurium bromide affects. According to Dr. Heath, Former Team Member # 18's testimony concerning the respiratory effect and the drug family of pancurium bromide was also wrong. Dr. Heath emphasized Former Team Member # 18's testimony wherein Former Team Member # 18 stated that he did not have enough knowledge about the drug. Dr. Heath believes that Former Team Member # 18, because of his position as the executioner, needed to know the information. By entrusting Former Team Member # 18 with the important position of executioner, Dr. Heath testified, there is a substantial risk of an inhumane execution.

Dr. Heath then compared Ohio's protocol to the Kentucky protocol. He indicated that three grams of the first drug is used in Kentucky instead of the two grams provided for by the Ohio protocol. He cited from the transcript of the *Baze* case before the United States Supreme Court wherein the attorneys for the State of Kentucky referred to their medical personnel as "the best in the Commonwealth." Dr. Heath testified that the personnel in Ohio are substandard. It is written in the Kentucky protocol that the warden is to check for consciousness whereas, in the Ohio protocol, it is not in writing. A one-hour time limit is placed on inserting the intravenous lines in Kentucky and Ohio has no time limit other than completing the execution before midnight of the day of the execution. By court order in Kentucky, the medical team is prohibited from accessing a vein in the neck. There is no such prohibition, written or unwritten, in Ohio's

protocol. According to Dr. Heath, there is medical expert or physician input into Kentucky's processes and a heart monitor is required to be utilized. In Ohio, there is little to no medical input and no monitors are used.

When asked to comment on the Clark execution, Dr. Heath testified that it was not proper to stick the inmate seventeen or eighteen times in an attempt to find another vein after the first access point had failed and that it was improper to attempt to start a line in the neck as was testified to by Former Team Member # 18.

On cross-examination, Dr. Heath admitted that United States Supreme Court found the three-drug protocol to be constitutional. He agreed that the three-drug protocol can be a humane method of execution so long as an adequate amount of the first drug is used.

In response to Dr. Heath's criticism of Former Team Member # 18 and, in particular, his misunderstanding of the first drug, Dr. Heath was asked questions about mixing that drug. Dr. Heath confirmed that so long as the directions are followed and so long as the drug has been properly manufactured, there is little risk of an improper mix.

Although the United States Supreme Court held that observation of the intravenous site by a lay individual is satisfactory, Dr. Heath maintained that medically trained personnel should be utilized. He believes that unqualified persons could miss signs of infiltration.

Dr. Heath also admitted that the United States Supreme Court found that a blood pressure cuff would have little utility because the inmate's blood pressure would be very low after the administration of the first drug. He cautioned, however, that a cuff would be useful if the inmate was not receiving all of the first drug. In that case, because of infiltration, a cuff could detect that the inmate was not unconscious to a depth that would be considered humane.

Dr. Heath suggested that physicians should be used throughout the process. He believes that some physicians may volunteer but admitted that he had no data to support that conclusion.

In conclusion, Dr. Heath testified that he believes that there is a likelihood in Ohio that an inmate will suffer pain and it would be easy to remedy the problems by changing the protocol to comport with his suggestions.

15. Dr. Mark Dershwitz

The only witness that Defendants called was Dr. Mark Dershwitz, who testified via video transmission. Dr. Dershwitz testified that he is a board certified anesthesiologist; a professor in the departments of Anesthesiology and Biochemistry and Molecular Pharmacology at the University of Massachusetts (“UMASS”); and a staff anesthesiologist at UMASS Memorial Medical Center. Confirming that he has provided expert testimony several times in cases involving the use of lethal injection as a method of execution, Dr. Dershwitz explained that he rendered his expert opinions in the fields of general pharmacology of the drugs used in lethal injection, as well as related topics such as the method of delivery of the drugs to the inmate. Defendants offered Dr. Dershwitz as an expert in anesthesiology and related scientific and medical fields, Biros did not object, and the Court so recognized Dr. Dershwitz as an expert.

Dr. Dershwitz testified that he was familiar with the expert opinions of Dr. Mark Heath. He described Dr. Heath’s opinions as consisting of a significant number of things that could possibly go wrong in the overall process of lethal injection and a “good chance,” in Dr. Heath’s view, that those things actually will go wrong. Dr. Dershwitz testified that although he agreed with Dr. Heath about the theoretical basis that any one of those things could go wrong, Dr. Dershwitz was of the view that, historically, the only problem of which he was aware was the

malfunctioning of an intravenous catheter and that that sort of problem has happened in only a small number of executions. Dr. Dershwitz testified that he did not believe it was possible to put a “scientific probability” on any given risk happening and that he did not believe that Dr. Heath has ever tried to do so.

Dr. Dershwitz proceed to recount the materials that he reviewed to prepare to testify in this proceeding, to wit: the protocols from both Ohio and Kentucky; depositions of Team Members # 18, 17, 9, 10, 1, 4, 5, 11, 19, 20, 15, 16, 12, 13, 14, 6, 7, and 8; depositions by Collins, Kerns, Voorhies, and Haviland; the deposition of Dr. Heath; and the trial testimony that Dr. Dershwitz had given a year ago in the *Rivera* case.

Dr. Dershwitz agreed that sodium thiopental is described in textbooks as an ultra short-acting barbiturate, but he qualified that by explaining that that characterization stems from a comparison to other barbiturates, not to other drugs in general. Thus, Dr. Dershwitz explained, long-acting barbiturates are used to treat conditions such as epilepsy, intermediate-duration barbiturates are used as nighttime sedatives, and ultra short-acting barbiturates are used as anesthetic medications. Dr. Dershwitz went on to testify that the two-gram dose of sodium thiopental used in Ohio’s lethal injection protocol would render the average person unconscious for approximately two hours, assuming that dose did not kill the person by stopping his breathing or dropping his blood pressure. Dr. Dershwitz opined that “there is the significant chance that some large fraction of people” would not survive a two-gram dose of sodium thiopental.

With respect to Dr. Heath’s opinion that “medical standards of practice” should be applied to the process of lethal injection, Dr. Dershwitz testified that he agreed “in part,” even though he does not view lethal injection as a medical procedure. Thus, Dr. Dershwitz explained,

the people who perform the administration of the medications and the securing of IV catheters should have experience performing those procedures in patients. When asked whether he thought it was appropriate for a medical practitioner to opine whether one method of execution was preferable to another, Dr. Dershwitz answered that he believed that he was qualified to discuss the pharmacological effects of the drugs at issue in these proceedings. Dr. Dershwitz went on to testify that the characterization of one protocol as “better” than another is a matter of public policy rather than medicine.

Dr. Dershwitz testified that he believed that physicians who have regularly and commonly given expert opinions on this matter would agree that a multi-gram dose of sodium thiopental, if administered effectively and as written in the protocol, would yield only a minuscule chance that the inmate would suffer from the subsequent administration of pancuronium bromide and potassium chloride. Dr. Dershwitz confirmed that he has done a number of studies consisting of “computer modeling calculations” to assess the effect on humans of a two-gram dose of sodium thiopental. Dr. Dershwitz explained that computer model calculations were preferable to experimenting on humans because typically a human given two or three grams of sodium thiopental is kept unconscious deliberately for hours or days, typically to mitigate a brain injury. Dr. Dershwitz testified that administering intravenously a two-gram dose of sodium thiopental to a person will cause the person to lose consciousness in approximately the amount of time it takes for blood to circulate from the arm to the brain—thirty to sixty seconds—and remain deeply anesthetized for many minutes thereafter. Dr. Dershwitz went on to testify that the average person given such a dose would remain unconscious for approximately two hours, but at a minimum, for seven or eight minutes and in a state of

anesthesia so deep that it is associated with deep coma and much deeper than typically would be used for surgery. Dr. Dershwitz reiterated that “a significant subset of the population” would die from a two-gram dose of sodium thiopental, either because they would stop breathing or because their blood pressure would drop to a degree that all circulation would almost completely stop. When asked whether a rapid cessation of breathing would be a visible sign that sodium thiopental had been administered effectively, Dr. Dershwitz agreed and explained that a dose of sodium thiopental would cause virtually anyone to stop breathing within approximately the time that it takes for the blood to circulate from the arm to the brain.

Dr. Dershwitz testified that he believed that the Ohio team members, based on the training and credentialing that they have received, would be qualified to prepare sodium thiopental for executions. Dr. Dershwitz opined that two of the three are credentialed EMTs and the third is a phlebotomist with many years of experience; all should be able to carry out their assigned tasks. Dr. Dershwitz described the process of mixing sodium thiopental as “actually rather simple.” He explained that the typical sodium thiopental kit consists of a vial containing 500 milligrams or a half a gram of powder and another vial containing twenty milliliters of diluent, which might be water or saline depending on the manufacturer. He continued that one would draw the diluent into a syringe, inject that diluent into the vial of powder, swirl the vial “a little bit” to dissolve all of the powder, and then draw the twenty-milliliter solution containing a half a gram of sodium thiopental back into the syringe. Dr. Dershwitz testified that because Ohio’s protocol prescribes a two-gram dose of sodium thiopental, it would be necessary to prepare four such vials for the syringes used in the lethal injection process. Dr. Dershwitz testified that the mixing process was so straightforward that at the hospital where he once

worked, when sodium thiopental was routinely used as an anesthetic, it was necessary to prepare “scores and scores” of syringes every day and the task usually was performed by an anesthesia technician or pharmacy technician with only on-the-job training.

Dr. Dershwitz testified subsequently about the qualifications of those on the execution team tasked with the job of administering the IVs. Dr. Dershwitz stated that it is appropriate to allow Team Member # 17 to administer an IV to an inmate because Team Member # 17 is an intermediate EMT who by his own testimony administers IVs in approximately 80 per cent of the people he treats on EMT runs. Dr. Dershwitz further testified that Team Member # 9, as a phlebotomist at a prison who draws blood and has a fair amount of experience administering IVs in emergency situations, is a person suitable to start an IV in an inmate.

In regard to the fact that the warden and the team leader in Ohio are tasked with observing the inmate’s IV sites for possible infiltration of sodium thiopental, Dr. Dershwitz testified that in view of the volume that is injected, it is likely that any infiltration (or subcutaneous injection rather than intravenous injection) would cause visible swelling. When asked about Dr. Heath’s concern that a layperson might not recognize subtle signs of infiltration, Dr. Dershwitz reiterated that in light of the eighty milliliters of sodium thiopental used in Ohio’s protocol, if so small an amount infiltrated as to be not visible to the naked eye or to a layperson, that would mean that a large fraction of the sodium thiopental had been injected into the bloodstream as intended. In subsequent testimony, Dr. Dershwitz characterized as “incredibly far-fetched” the possibility that an injection site might fail during the attempted administration of sodium thiopental but then somehow subsequently allow the administration of pancuronium bromide and/or potassium chloride.

Dr. Dershwitz agreed that the administration of pancuronium bromide would mitigate the involuntary visible movements that might be caused by a subsequent administration of potassium chloride. Dr. Dershwitz explained that although the dose of potassium chloride prescribed in Ohio's protocol will cause all electrical activity in the heart to cease, it also will cause wide-spread stimulation of nerve and muscle tissue that would in turn result in involuntary muscle contractions. Thus, according to Dr. Dershwitz's testimony, pancuronium will mitigate the effect of potassium on nerve and muscle tissue. That said, Dr. Dershwitz continued, the likelihood that an inmate would experience seizures or convulsions from the potassium chloride already is remote due to the volume of sodium thiopental that will have been administered and considering that sodium thiopental is the best medication to prevent or treat seizures.

With respect to what purpose the use of pancuronium bromide serves in the lethal injection process, such as mitigating the risk that laypeople might perceive from involuntary contractions that the execution is causing pain to the inmate that the inmate is not in fact experiencing, Dr. Dershwitz agreed that he could not render an expert opinion whether the public policy decision to include pancuronium bromide for a purpose such as that described above was good or bad. Dr. Dershwitz clarified that his expertise is limited to providing expert information on the effects of the drugs and advantages or disadvantages of various permutations of the protocol.

In response to a question of whether he thought it was necessary for a person administering the lethal injection drugs to have the same knowledge of the properties of those drugs that an anesthesiologist or nurse or health-care practitioner would have, Dr. Dershwitz answered that he thought it was important for the person who prepares and injects the drugs to

have sufficient training and experience in preparing medications for intravenous administration and the ability to follow and implement the protocol as written. Dr. Dershwitz testified that he believed that Former Team Member # 18, as the person who mixed and administered the drugs in all but one of Ohio's executions, and Team Member # 17, as the person who mixed and administered the drugs in the one execution in which Former Team Member # 18 did not, should not be regarded as unable "to follow relatively simply directions in a relatively simple protocol" just because neither of them would be expected to give sodium thiopental as part of "their day job." Dr. Dershwitz based that opinion on Former Team Member # 18's training as a paramedic and experience in administering medications and on Team Member # 17's training and experience as an intermediate EMT.

Dr. Dershwitz then answered questions about the "rough-and-ready" consciousness check that the warden has employed during the two most recent executions. Dr. Dershwitz stated that such a consciousness check was sufficient to confirm that sodium thiopental had rendered the inmate unconscious. He explained that he viewed it as important to differentiate between assessing a person's level of unconsciousness, which laypeople easily can be taught to do, and assessing a person's depth of anesthesia (for purposes of ensuring that the patient is at the right depth of anesthesia and not too deep or too light), which typically only a trained clinician can do. Dr. Dershwitz testified that the graded stimulus described in the warden's deposition—whereby the warden first speaks the person's name and then perhaps shakes or pinches the inmate—would be sufficient to ensure that the inmate received an adequate dose of sodium thiopental intravenously and was indeed unconscious. Dr. Dershwitz stated that because it is reasonable to assume that an inmate would be highly motivated to respond if he or she were awake or not fully

unconscious, a lack of response is very good evidence that the person is indeed unconscious. Dr. Dershwitz testified that it would not necessarily be helpful to employ equipment such as a blood pressure cuff in assessing the level of an inmate's unconsciousness following administration of sodium thiopental. Dr. Dershwitz explained that there is a distinction between the need to monitor blood pressure intra-operatively (to ensure that the patient has adequate blood pressure for circulation and to ascertain whether the patient might be responding to "noxious stimuli") and determining simply whether a person is unconscious, for which changes in blood pressure would not be a reliable indicator.

Finally, Dr. Dershwitz agreed that the defendants in this case have acted reasonably in conducting lethal injections using the execution team that they have used and under the protocol that has been established. Dr. Dershwitz stated that he based that belief on the information that he reviewed concerning the team members who establish the IV sites for executions and the members who administer the drugs for executions, Ohio's written protocol itself, and testimony from numerous persons who have participated in Ohio's lethal injections.

On cross-examination, Dr. Dershwitz stated that a typical person will be unconscious following a dose of 200 milligrams of sodium thiopental but will not remain unconscious for long because the drug at that dose will wear off in a relatively brief period of time, perhaps as soon as five minutes. Dr. Dershwitz confirmed, therefore, that if an average person received a 200-milligram dose of sodium thiopental and was immediately subjected to a rough-and-ready consciousness check, that person likely would be deemed unconscious at that moment but could regain consciousness in approximately five minutes. Dr. Dershwitz then hedged on confirming whether a rough-and-ready consciousness check would be sufficient to ensure that an inmate

who had received a 200-milligram dose of sodium thiopental instead of the full two grams would remain unconscious for the duration of an execution, assuming that the execution procedure lasts longer than five minutes. Dr. Dershwitz based his reluctance to agree with that conclusion on his understanding that the rough-and-ready consciousness check was not the only piece of data that is used in determining whether the second and third drugs can be administered. Dr. Dershwitz opined that the process of the executioner sensing whether the feel of the syringe is as expected, coupled with others observing signs from the inmate such as whether the inmate stops breathing and whether there is swelling at the injection site, taken as a whole are used to determine whether or not the first drug was successfully administered. Dr. Dershwitz concluded by agreeing that a rough-and-ready consciousness check should not be the only piece of data that is used to determine whether it is appropriate to proceed with the administration of the full protocol of drugs and by reiterating his belief that it is not.

In response to the relative qualifications of the personnel in Ohio tasked with carrying out executions, Dr. Dershwitz testified that although the best way to determine whether someone was qualified was to evaluate that person individually, he was not able to do that and could only opine generally that someone who is trained as an EMT should be able to perform such tasks as securing IV access and preparing medications. Dr. Dershwitz agreed that the people who implement a protocol, in order to implement it as written, must be capable and competent to follow that protocol and that it is essential that there be somebody within the prison administration who ensures that those tasked with implementing the protocol are competent to do so. Dr. Dershwitz testified that it was his understanding that in Ohio, the warden takes responsibility for all steps involved in the execution, including ensuring that the persons who

carry out the protocol are qualified to do so. Dr. Dershwitz went on to testify that through not only periodic reviews of the certifications of the team members but also observations of the execution team rehearsals, the warden should be able to make a sufficient determination whether the team members are capable of doing their assigned jobs.

Dr. Dershwitz confirmed his previous testimony that he believed that if Ohio's protocol is administered as written, there is minuscule chance of pain. He also testified that he believed that "virtually every medical expert who has evaluated protocols on behalf of both inmates and states agrees with that statement in a general way." In response to hypothetical questions whether he would agree that there are "textbook" ways to perform a task or a "textbook way" of teaching people to perform a task, Dr. Dershwitz answered in the negative, testifying that he does not rely on textbooks when teaching a procedure to students because he believes that people typically learn better how to perform a procedure by observing rather than by reading. Dr. Dershwitz also disagreed that if a person does not follow an instruction the way that it has been given, there is a risk that the person will not perform the procedure properly. Dr. Dershwitz explained that there are many safe, responsible, and effective ways for achieving any given endpoint.

Dr. Dershwitz restated that a layperson should be able to determine that an IV site has infiltrated if a significant amount of fluid is involved because a significant amount of fluid that goes subcutaneously will produce visible swelling. With respect to the amount of sodium thiopental that Ohio uses in its protocol, eighty milliliters or a little less than three fluid ounces, Dr. Dershwitz testified that if a significant fraction of that amount went subcutaneously, it should cause visible swelling. Dr. Dershwitz agreed that one does not need "special training" to see

swelling. Dr. Dershwitz also agreed that if the IV insertion site is covered, then the ability to discern swelling is not there. Dr. Dershwitz then agreed that if a team proceeded present day with an execution during which the injection site is not visible to them because it is covered by a smock, he would question whether those team members have the appropriate level of knowledge necessary to serve in the roles in which they have been asked to serve. He later agreed that in general, it always would be a good idea to evaluate the IV site and to have the site visible. When asked whether the written protocol that he had reviewed contained anything specifically requiring the warden, team leader, or anyone else observe the IV sites, Dr. Dershwitz answered that no such requirement is “written down.” He then agreed that if it were the intent to have the warden, team leader, or anyone else observe the IV sites, it would be a good idea to have that written down.

Following questioning about when during the Clark execution infiltration was detected and whether Dr. Dershwitz had any concerns about the fact that two syringes of sodium thiopental and a syringe of saline flush had been delivered before anyone had noticed an infiltration, Dr. Dershwitz testified that to the extent that the team administered an IV that did not work, he does not fault any member of the team because such failures happen in clinical medicine to patients and because some people have risk factors, such as a history of drug abuse, that make establishing an IV “very, very difficult.” Dr. Dershwitz went on to testify with respect to the risk that Clark might have been subjected to discomfort and unpleasantness from administration of pancuronium bromide or potassium chloride that it was Dr. Dershwitz’s understanding that Former Team Member # 18 did notice that was something wrong and did not intend to deliver the second and third drugs. Thus, Dr. Dershwitz concluded, even though Clark

was not rendered unconscious in a timely fashion, there was not a significant risk that the execution team was going to proceed with the administration of the second and third drugs. Dr. Dershwitz ultimately agreed, however, that assuming a person were standing next to the inmate, feeling the injection site with his fingers, and observing the injection site with his eyes, and assuming that the volume of fluid described was administered subcutaneously as opposed to intramuscularly, then that infiltration should be observable to the person next to the inmate.

Regarding the fact that Clark was awake for thirty to forty minutes after being given a two-gram dose of sodium thiopental, Dr. Dershwitz explained that if two grams of sodium thiopental were administered anywhere into the body, the person sooner or later will lose unconsciousness. Dr. Dershwitz readily agreed that if the sodium thiopental was administered in one arm subcutaneously (due to an infiltrated site), it would be a “bad idea” to switch IV lines to administer the pancuronium bromide or to switch IV lines from one to the other without starting the entire injection sequence from the beginning because without proper anesthesia, the administration of pancuronium bromide would cause great discomfort and the administration of potassium chloride would be painful.

Regarding Dr. Dershwitz’s distinction that the administration of pancuronium bromide by itself would cause great discomfort rather than extreme pain, Dr. Dershwitz was asked to describe in more detail what he believed the effect of Ohio’s dosage level of pancuronium bromide alone would be on the inmate. Dr. Dershwitz answered that administration of pancuronium bromide to a person who was wide awake initially would cause the person to feel a sense of weakness that progresses to complete paralysis of all muscles in the body, resulting in a conscious desire to breathe but an inability to do so. After conceding that he had committed a “pharmacological

boo-boo” by suggesting that pancuronium bromide would paralyze *all* of the muscles in the human body, Dr. Dershwitz clarified that it would paralyze all of the *skeletal* muscles in the body. Dr. Dershwitz agreed that pancuronium bromide in the dosages prescribed by Ohio’s protocol would not only be sufficient to cause death, but also are seven to ten times the lethal dose.

Dr. Dershwitz testified that the amount of potassium chloride prescribed by Ohio’s protocol would be sufficient without any other drugs to cause death. Dr. Dershwitz explained that potassium chloride, given in that dose and without anesthesia, would cause the inmate to experience a significant burning sensation at the injection site. He stated that as it circulates to the heart within fifteen to thirty seconds, the drug would within a few seconds of reaching the heart stop the heart’s electrical and mechanical activity, causing the person to feel heart or chest pain and to lose consciousness. Dr. Dershwitz estimated that it would take a minute from the time the person is injected in the arm with that dose of potassium chloride until the time when the person loses consciousness.

Dr. Dershwitz agreed that Ohio’s written protocol does not include any instructions to the medical team regarding the switching of lines from the primary line to the back-up line. Emphasizing that he was not aware of an execution in Ohio where the team switched lines without starting the drug sequence over, Dr. Dershwitz agreed that it would be reasonable and prudent to include that level of detail in the written protocol, “as it is in some other jurisdictions.”

Dr. Dershwitz agreed that the effective delivery of sodium thiopental is critical to a humane execution. Dr. Dershwitz elaborated that if sodium thiopental was administered

unsuccessfully and then immediately pancuronium bromide and potassium chloride were given successfully, he would expect that the inmate would suffer. Agreeing that the inclusion of pancuronium bromide and potassium chloride increases the risk that an inmate could suffer during an execution, Dr. Dershwitz cautioned that because there are advantages and disadvantages to alternatives, he would leave it to others to decide whether it is a good idea to include those two drugs. Dr. Dershwitz also agreed that a single, large, multi-gram dose of sodium thiopental could effectively cause death, but qualified that answer by testifying that because that had never been done, he would have a difficult time opining on what specific dose of sodium thiopental would be absolutely lethal to anyone. He agreed, however, that all anesthesiologists typically would “believe that there is no person who could not be rendered dead by some dose of [sodium] thiopental.” With the understanding that no one knows what effect a dose of five grams of sodium thiopental would have on a person, Dr. Dershwitz was willing to testify that a single, multi-gram dose of sodium thiopental would cause an inmate to expire in no more than ten minutes.

Dr. Dershwitz then answered a series of questions about a BIS monitor. He explained that “BIS” stands for Bispectral Index, which is a number that is derived from a computer that measures brain waves. Thus, Dr. Dershwitz continued, whereas interpretation of “raw EEG squiggles” requires a neurological expert, a BIS monitor would be useful to anyone because it simply assigns a number measuring brain waves between zero and one-hundred. Dr. Dershwitz explained that a BIS monitor is commonly used in anesthesia to assist in keeping the patient ideally between 40 and 60, which ensures a high probability of unconsciousness during the surgery while ensuring the quickest possible awakening following the surgery. Dr. Dershwitz

testified that at least one state, North Carolina, employs a BIS monitor in connection with its execution process, that at least one other state had acquired a BIS monitor for use in executions but had not used it yet, and that at least one other state was actively discussing making it a part of the state's execution protocol. Dr. Dershwitz agreed that he finds it helpful as an anesthesiologist to use a BIS monitor to assess the level of anesthesia and that depth of consciousness—or more precisely, depth of anesthesia—would be a relevant factor to measure in an execution.

Dr. Dershwitz agreed generally that a person administering the three drugs in an execution should have a basic knowledge as to what effect the drugs have on the body and a great appreciation for why it would be a bad idea to give the second and third drugs to a person who is awake.

In response to whether he was aware of any state protocol calling for the use of a “central line” for the primary site for the administration of the lethal injection drugs, Dr. Dershwitz testified that he was under the impression that Missouri's protocol and the federal government's protocol called for the use of the femoral vein as the primary injection site in lethal injection executions. Dr. Dershwitz testified that it was also his understanding that both of those jurisdictions utilized physicians to access those femoral sites. Dr. Dershwitz then agreed that it would be prudent for a protocol like Ohio's protocol, which calls for peripheral IV sites in the antecubital areas of each of the inmate's arms, to have a back-up plan in the event that one of those peripheral sites cannot be accessed. Dr. Dershwitz explained that if experienced people are not able to achieve peripheral IV access, it would be reasonable to have a different person with greater training and experience—perhaps but not necessarily a physician—to attempt an IV in

either the internal jugular vein, the subclavian vein, or the femoral vein. Dr. Dershwitz agreed during redirect examination that his testimony assumed without knowing that a physician in that scenario could be found who would have no ethical obligations barring his participation in that part of an execution process.

Dr. Dershwitz concluded his cross examination testimony by agreeing generally that the inclusion in Ohio's written execution protocol of a few additional steps or details would make the protocol more sound. He cautioned, however, that if the precise question was whether, in his expert opinion, a written protocol should include all of the essential components of the execution process, then he could not answer the question as phrased "because different people will have different definitions of the word 'essential.' "

16. Terry Collins

The last witness to testify at the hearing was Terry J. Collins. Collins testified that he had been with the department for thirty-two years and that he had served as warden at SOCF beginning in 1993. In May 2006, Collins testified, he assumed his current position as Director of the DRC.

Collins testified that during his tenure as SOCF's warden, there were no executions performed. He stated that he was not familiar with how the execution team then in place had been assembled and explained that prior to Ohio's adoption of the lethal injection protocol, there had been no medical team members on the execution team. Therefore, Collins testified, he added medical team members to the execution team while serving as warden, including Former Team Member # 18.

When asked about training of the team members, the former warden testified that no

special education had been given to the individual serving as the executioner. Collins testified that he had no recollection of any training on how to administer the three-drug protocol. He also testified that he had traveled to Huntsville, Texas for three days to shadow a Texas warden prior to and during an execution in that state, but that he had never consulted out-of-state individuals as to how to improve Ohio's protocol. Collins testified that former SOCF warden Voorhies had implemented training related to the execution process. In later testimony, Collins explained that he knows the three medical team members and that he relies on the warden to check their qualifications. Collins later testified that the SOCF warden is not required to have medical training.

Collins described the bureaucratic oversight of the execution process. Technically, he stated, the SOCF warden oversees the execution and the Director, who oversees the entire DRC, assists the warden, as do individuals such as the regional director. If a judgment call needs to be made in carrying out the execution process, Collins testified, it depends on the context who would make that call. Collins explained that he would call the governor with a recommendation and that, technically, the governor would be the individual to tell them to stop by granting a reprieve. Collins also testified that he could not say that the governor was in the room when he would call the governor's office, but stated that he assumes he would be able to talk to the governor.

When asked about making changes to the current protocol, Collins testified that Ohio was looking at a "whole bunch" of possible changes to its protocol. He stated that the current protocol is a "closed policy," which means that unlike other policies, it is sent to only select individuals when changes are considered, including himself, the legal counsel for the DRC, and

others. If the warden or chief legal counsel suggested a change, Collins explained, then he would assemble various individuals to discuss the policy and consider the proposed change. Collins stated that such a change could be implemented in thirty days, or possibly fifteen days, or possibly ten days; usually, he noted, the group of advisers have to wait on him because he is so busy.

Collins testified that he agrees with the proposition that the warden must implement the written policy to carry out the law of Ohio. He also testified that the warden does not have to implement what is not in the written policy.

In response to questioning concerning the Clark execution, Collins testified that he had been told of the difficulty in obtaining IV sites in the holding cell and that he had been told that they could proceed with only one site, so he accepted that recommendation. After problems arose and the curtain was closed in the death chamber, Collins got on a landline telephone to speak with the governor and on a cell phone to speak with the attorney general's office. He also met with his chief counsel in the hallway outside the death chamber for a brief discussion. Collins stated that he spoke with the governor's office two to three times and that he may or may not have stepped into the death chamber. He testified that he gave no orders or opinions on what should or should not be done during that execution.

In response to questioning concerning the possible adoption of a one-drug protocol, Collins acknowledged that he was aware of the state court decision in *State v. Rivera* and testified that he understood the case was on appeal. Collins stated that the case has not prompted him to inquire into the one-drug protocol and that until he receives a death warrant for either of the two defendants involved in *Rivera*, he does not see the need to look at a one-drug protocol.

Collins stated that he would study the issue if the warden came to him with the suggestion of adopting a one-drug protocol. Collins testified that he was not aware that any Ohio statute authorizes a one-drug protocol. Collins also testified that he had once mentioned the possibility of a one-drug protocol in a meeting, but when no one responded, he never followed up on the possibility. He noted that adoption of a one-drug protocol could have ramifications in Ohio and for other states as well and stated that he would send the issue to the governor before ever changing the protocol. When directed to Ohio Rev. Code § 2949.22, which authorizes execution by a drug or combination of drugs, Collins testified that Ohio could perform executions with one drug without a statutory change.

Collins testified that executions were one of the most difficult parts of his job. He stated that he agrees that any significant changes to Ohio's protocol should be in its written policy. On cross-examination, Collins testified that if a warden believed that something could be done better in the execution process and if Collins approved, then Collins would tell him to proceed with the suggestion. He noted that he had previously been asked for permission to deviate from the written policy in regard to visitation of the inmate by family members who had arrived outside the time period for visitation permitted by the protocol and that he had permitted the deviation. Collins opined that Ohio has the best written policy in the country. He also stated that he strives each day to do the best that he can do and that the ultimate goal is to be as humane as possible and as professional as possible in the execution process. Collins concluded by stating that he believes that Ohio's procedures are as humane and as best as they can be right now.

17. Team Member # 9

The parties agreed to submit the deposition of Team Member # 9. Team Member # 9 is a

phlebotomist within the Ohio corrections system and is a medical team member on the execution team. She has been a phlebotomist for twenty years and is trained to draw blood under the supervision of a physician. Although she assisted nurses in inserting heparin locks in the hospital setting before she came to the institution at which she works, she did not insert them herself until she became a part of the medical team and after she received training on the procedure.

Team Member # 9 testified that she has participated in three executions. Her first experience on the team was the execution of Christopher Newton and she later participated in the executions of inmates Bryant-Bey and Cooley. Team Member # 9 indicated that she and another medical team member inserted the heparin locks and catheters in Christopher Newton. She testified that it was not difficult to gain access to inmate Newton's veins but that the veins would thereafter collapse. It took approximately one hour to find a vein that would not collapse in one of the inmate's arms. A good vein was found in the other arm in about ten minutes. She indicated that the inmate was cooperative throughout the time it took to complete the insertions. She also indicated that no one tried to hurry the process and they took their time to make sure that they got it right.

Team Member # 9 said that she had no familiarity with the three drugs used because she is not involved in that part of the execution. Her duties include inserting the catheter and the heparin locks in the holding cell and then, when the execution is completed, she removes the catheters and heparin locks and cleans the insertion areas.

After the Newton execution, Team Member # 9 received some additional training in intravenous therapy and the different methods of inserting the catheters. She does not use the

training in her day-to-day activities at the institution because she does not insert catheters and heparin locks as a phlebotomist. Team Member # 9 testified that the medical team members had no problems inserting the catheters in the Bryant-Bey or Cooley executions.

On cross-examination, Team Member # 9 maintained that she does not have any training in administering drugs but she has sufficient training to gain access to a vein, which would allow someone else to administer the drugs.

C. The November 30, 2009 Protocol

Effective November 30, 2009, Ohio adopted an execution protocol that establishes new guidelines for “carrying out a court-ordered sentence of death.” See Execution Protocol Number 01-COM-11 (effective 11/30/09), hereafter referred to as the “protocol.” (Doc. # 607-1.) The protocol applies to all individuals involved in carrying out a court-ordered death sentence and incorporates the policy of the Ohio Department of Rehabilitation and Correction to perform all execution processes in a “professional, humane, sensitive, and dignified manner.”

The pertinent provisions of the protocol are summarized as follows:

Approximately thirty days before the execution date, SOCF will begin conducting training sessions no less than once per week until the execution date. Training on the following topics is prescribed for every member of the execution team prior to their initial service and at least once per year thereafter:

- 1) the general nature and effects of the drugs that are used during the execution;
- 2) drug administration procedures including the insertion of IV needles and the administration of intramuscular injections;
- 3) identifying signs indicating problems when administering drugs; and

4) any legal developments of significance.

Pursuant to the protocol, the warden or execution team leader will verify and document prior to the commencement of the training session persons who are qualified under Ohio law to administer and prepare drugs for intravenous and intramuscular injections and that those persons have at least one year experience as a certified medical assistant, phlebotomist, EMT, paramedic, or military corpsman.

Approximately twenty-four hours before the scheduled execution, the condemned prisoner is to be transported from the institution in which he is housed on death row to the death house at SOCF. The prisoner is to be constantly monitored by at least three members of the execution team, and a log is maintained indicating visitors, movement, mood changes, meals served, showers, telephone calls, and other matters. A licensed mental health professional is directed to conduct an interview of the prisoner and submit progress reports. On the day of the prisoner's arrival at SOCF, the prisoner's veins are to be evaluated by trained medical staff to plan for foreseeable difficulties. At a minimum, the vein assessment shall be conducted upon arrival, later that evening, and the following morning. Potential problems are to be noted and considered in advance of the execution.

The condemned prisoner shall request the last meal, which is served at 4:00 p.m. on the day before the execution. The prisoner is permitted contact visits with family, friend, and clergy between 4:30 p.m. and 7:30 p.m. as approved by the warden. The morning of the execution, cell front visits are allowed between 6:30 a.m. and 8:00 a.m. The prisoner's attorney and spiritual advisor may continue to visit until 8:45 a.m. on the morning of the execution. The warden is given the discretion to "make alterations and adjustments to this policy or other policies as

necessary to ensure that the completion of the execution is carried out in a humane, dignified, and professional manner.”

On the day scheduled for the execution, the designated drugs are delivered to the death house for mixing and are prepared for intravenous and intramuscular injections. The first drug (Plan A) is five grams of thiopental sodium, which is prepared with 25 mg/cc concentration, 40 cc per gram for a total of 200 cc that is placed in five separate syringes labeled “1” through “5” and which are utilized for the intravenous injection. Five additional grams are kept available but are not mixed and prepared unless the primary intravenous dose proves to be insufficient.

A second concentration consisting of two drugs is prepared (Plan B). This combination of drugs consist of 10 mg of midazolam with 5 mg/mL concentration and 40 mg of hydromorphone with 10 mg/mL concentration. The two drugs are drawn into a single syringe and mixed for intramuscular injection if the decision is made to use an alternative method of execution. The syringe containing the intramuscular injection is labeled “A” and a second syringe of the same mixture is prepared and labeled “B.” A third syringe of 60 mg of hydromorphone only is prepared and it is labeled “C.” Syringes “B” and “C” are prepared as backups for use only if there is a need for them during the execution.

On the morning of the execution after the death warrant has been read to the condemned prisoner, medical team members of the execution team are directed to enter the prisoner’s holding cell, which is located near the execution chamber, and establish one or two viable IV sites using heparin locks. The team members shall make such number of attempts to establish IV sites as may be reasonable under the circumstances and shall take the amount of time necessary while pursuing this objective. It is recommended that the medical team members utilize arm

veins near the joint between the upper and lower arm. If these preferred sites are unable to be accessed, the team members “as they may be authorized by law” may explore other sites. If access to two or even one site cannot be established, the execution team is directed to consult with the warden. The warden, after consultation with the director and others, including legal counsel and the Governor’s office, shall make a decision whether or how long to continue efforts to establish an IV site. If, after consultation, the director and the warden decide to proceed with the alternative method of execution (Plan B), further attempts to establish an IV site may be discontinued.

The condemned prisoner shall then be escorted to the execution chamber and strapped to the lethal injection bed. Assuming that one or two IV sites have been established, the execution team members are then directed to confirm the viability of the site or sites and connect the injection tubes that traverse from the control room where the injection is physically performed to the site or sites located on the prisoner. The prisoner is permitted to make a last statement and the warden then gives the signal to the control room to begin the administration of the thiopental sodium intravenous drug. The warden shall observe the inmate throughout the process. The execution team leader, the warden, and the drug administrator shall watch for signs of swelling or infiltration that indicate that the IV site has been compromised. If a problem with the intravenous injection occur, the problem is to be corrected or the primary injection site changed to the second injection site, assuming that a second site has been established. The execution team is authorized to establish another viable site if the initial site or sites are compromised. In such an event, the injection protocol and the sequence of events shall be started again.

If the warden and the director decide that intravenous injections should not be used or

should be discontinued, the alternative method (Plan B) may be used. In that event, a medical team member of the execution team shall enter the execution chamber and administer an intramuscular injection of the midazolam and hydromorphone mixture into a large muscle, usually the deltoid or triceps muscle. Alternative sites for the intramuscular injection may be considered under appropriate circumstances. Five minutes after the intramuscular injection, if the inmate is still breathing, the medical team member shall re-enter the execution chamber and administer the same drug mixture again intramuscularly. If, after another five minutes has elapsed, the prisoner is still breathing, the medical team member shall re-enter the execution chamber and shall intramuscularly administer a third injection of hydromorphone only contained in syringe "C." Any additional doses shall be administered in an amount, concentration, and manner as previously described with syringe "C" containing hydromorphone only.

After completion of the lethal injection process and after sufficient time for death to have occurred, the curtain separating the witness viewing rooms and the execution chamber shall be closed and an appropriate medical professional is required to evaluate the condemned prisoner to confirm his or her death. The curtain will then be re-opened and the Warden will announce the time of death.

D. December 4, 2009 Hearing Testimony

1. Dr. Mark Heath

Following opening statements by Biros's and Defendants' counsel, Biros called as his only witness Dr. Mark J.S. Heath, who testified via telephone. Dr. Heath testified before this Court in Biros's March 2009 hearing and the Court has already set forth his background and qualifications as an expert in the field of anesthesiology. At the outset of Dr. Heath's testimony

in the second hearing, the parties stipulated to his qualification as an expert in his field and this Court recognized the same. After detailing the materials that he had reviewed and referring to his December 2, 2009 Declaration, attached to Biros's emergency motion (Doc. # 610-1), Dr. Heath began his testimony by commending the State of Ohio for amending its execution protocol to eliminate the use of pancuronium bromide and potassium chloride in favor of the use of a single dose of thiopental. During cross-examination, Dr. Heath agreed that if properly administered, a 5-gram dose of thiopental "almost absolutely, certainly" will cause rapid death.

Dr. Heath went on to explain that Ohio's new protocol may be divided into Plan A, "which involves the establishment of intravenous access followed by one or more injections of 5 grams of thiopental, until the prisoner is dead," and Plan B, "which is a 'backup plan' in the event that IV access is thought or found to be not feasible [that] involves the intramuscular injection of one or more doses of a combination of midazolam and hydromorphone." (Doc. # 610-1, at 2 ¶ 7.)

Turning to Plan A, Dr. Heath again commended Ohio for moving to a single-drug protocol and described the change as a "big improvement." Dr. Heath went on to explain, however, that he nonetheless found significant problems with Plan A in that it does nothing to remedy the problems associated with the inability to find, access, or maintain intravenous access that hindered the executions of Joseph Clark and Christopher Newton and that more recently prevented the execution of Romell Broom. Dr. Heath testified that there are ways to address scenarios where the execution team encounters problems obtaining intravenous access, such as Kentucky's protocol, which imposes a 60-minute time limit for the execution team to obtain intravenous access before the execution must be postponed. Dr. Heath expressed concern about

the amount of discretion that exists in Ohio's execution protocol, such as the fact that it allows the team until midnight on the day of an execution to obtain intravenous access, because of the "abuse of discretion" that the team has displayed during past executions. Dr. Heath explained that what happened to Romell Broom—attempts to obtain intravenous access that spanned two hours and involved eighteen to nineteen needle "sticks," many of which contravened accepted practices for inserting a peripheral IV catheter—would never be permitted in a clinical health care setting.

Dr. Heath testified that he met with and examined Romell Broom three or four days after the State's attempt to execute him. Dr. Heath obtained from Broom his medical history and a description of his injuries from the execution team's attempts to obtain intravenous access. Dr. Heath also visually observed Broom's injuries and examined him. Dr. Heath testified that he found nothing in Broom's self-reported medical history that would explain why the execution team was unable to obtain intravenous access. Dr. Heath explained that the fact that Broom exercised regularly would actually be a benefit in terms of finding and accessing his veins. Dr. Heath also explained that Broom denied that he had ever engaged in intravenous drug use and that he (Dr. Heath) observed no scars or other damage indicating intravenous drug use. Dr. Heath opined that Broom's veins should have been easily accessed by a competent execution team. Dr. Heath testified that he is "very concerned" that Ohio's execution team is not "up to the task." During cross-examination, Dr. Heath confirmed that he had taken into consideration the possibility that Broom might exaggerate his description of the medical team's attempts to obtain IV access. Dr. Heath discounted that possibility, however, explaining that the injuries he had observed were consistent with the descriptions that Broom provided and that the details that

Broom provided were such that he would not likely know had he not actually experienced what he had described.

Dr. Heath reiterated his concerns about the fact that Ohio's protocol does not limit the amount of time or the number of attempts that can be made to obtain IV access, in general and especially in light of Ohio's history of problems in this regard. Dr. Heath also voiced concerns about the absence in Ohio's written protocol of any express prohibitions on the use of alternate methods for obtaining intravenous access, such as a "cut down" procedure.⁵ Referring to his Declaration, Dr. Heath testified that Ohio's written protocol uses needlessly vague language "that appears to leave open essentially any route or method of achieving IV access, including central lines and cut-downs." (Doc. # 610-1, at 5 ¶ k.) Dr. Heath explained that all states should endeavor to articulate precisely what is permitted and prohibited and that there is no valid reason not to set forth in a protocol that which the state maintains it will never do. Dr. Heath then stated that Ohio in particular, given its history of problems with IV access and lack of a backup plan until recently despite repeated requests for one, should endeavor to be precise about what is permitted and what is prohibited.

Continuing with his concerns about Plan A, Dr. Heath expressed concerns about the undue reliance in Ohio's protocol on execution team members' licensure as a guarantee that they qualified to administer peripheral IVs. The fact that Ohio's protocol requires those who administer the IVs to have "one year of experience" is inadequate, Dr. Heath explained, because it leaves open the possibility that the person's experience will have been remote. Dr. Heath

⁵ Dr. Heath explained that a "cut down" procedure is a medical or surgical procedure that involves making an incision into the skin and then cutting down through various tissues in order to reach a vein not otherwise visible or detectable.

testified that having a license does not ensure the currency of practice necessary to render a person qualified to perform whatever task for which the person is licensed. Dr. Heath testified as he has before that administering peripheral IVs, much less performing a central line or cut-down procedure, should be part of a person's "day job" in order for that person to be regarded as competent to perform the task during an execution. Having reviewed the depositions of the medical team members involved in the attempt to execute Broom, albeit not recently Dr. Heath cautioned, Dr. Heath stated that he did not believe that any of the three were competent to perform a central line or cut-down procedure. Regarding the administration of peripheral IVs, Dr. Heath explained that he could not recall what the team members' "day jobs" were. During cross-examination, Dr. Heath testified emphatically that it was "deeply inappropriate" for a phlebotomist to administer an IV catheter because of how completely different that process is from what phlebotomists are trained to do: draw blood. Dr. Heath reiterated, however, that he was of the view that Broom's veins were easily accessible and that he could offer no explanation, beyond possibly the "environment," for why the execution team was not able to obtain IV access.

During cross-examination concerning the subject of physicians or nurses participating in executions, Dr. Heath discounted the assumption that ethical considerations legally prohibit physicians or nurses from participating in executions. Dr. Heath noted that ethical considerations propounded by professional associations, such as the American Medical Association, do not constitute controlling authority. Dr. Heath also discounted any prohibition that might be set forth in Ohio law, noting that anyone who researched the matter would learn that no physician has been sanctioned for participating in an execution. Dr. Heath suggested that

Defendants have not made a serious effort to identify physicians who would be willing to participate in Ohio's execution process. During redirect examination, Dr. Heath made reference to a recent academic article exploring physician participation in executions; this article subsequently was submitted by counsel. Ty Alper, *The Truth About Physician Participation In Lethal Injection Executions*, 88 N.C. L. Rev. ____ (forthcoming 2009).

Continuing on the subject of the competency of Ohio's execution team, Dr. Heath testified during direct examination about the nature of the injuries that he observed on Romell Broom, as well as Broom's description of the team's attempts to obtain IV access, as evidence that the three medical personnel on Ohio's execution team are not competent or adequately trained to administer IV catheters. Dr. Heath explained first that although Broom exhibited eighteen to nineteen needle entry points, the actual number of attempts to obtain IV access was far greater because, according to Broom, the team on numerous occasions utilized a single entry point to make numerous attempts to actually insert an IV catheter. If, as Broom recounted to Dr. Heath, the team members made attempts that Broom described as inserting the needle and catheter a full inch into his flesh and at a steep or sharp angle, rather than a more level angle, then the team members were making attempts that had no chance of succeeding, according to Dr. Heath. Dr. Heath testified that a depth of an inch in an effort to obtain IV access is not proper. Dr. Heath testified that inserting an IV needle at a steep angle also is not proper. Dr. Heath also referenced as evidence of incompetence the fact that during the attempt to execute Broom, one of the medical team members actually managed to insert an IV catheter only to have that catheter slip out while the team member attempted the "relatively easy" process of securing the tubing

attached to the catheter.⁶ Dr. Heath additionally noted that the fact that that team member, according to Broom, had not been wearing gloves may very well have contributed to his botching of the “relatively easy” task by causing that team member to fear that he would get blood on his hands.

Another shortcoming of Plan A, as written and as compounded by the incompetence of Ohio’s execution team, Dr. Heath explained, is the protocol’s failure to “describe what the execution team should do if the thiopental injection infiltrates.” (Doc. # 610-1, at 5 ¶ m.) Dr. Heath denounced as unacceptable Ohio’s plan to administer a second 5-gram dose of thiopental if, five minutes after receiving a 5-gram dose of thiopental, the inmate is awake and breathing. Dr. Heath explained that if an inmate is awake and breathing five minutes after receiving a 5-gram dose of thiopental, that is a strong indication that the dose was not effective—not because more is needed—but because the dose infiltrated. Dr. Heath testified consistent with his Declaration that “administration of an additional dose would result in the further infiltration and accumulation of thiopental in the tissue surrounding the vein.” (Doc. # 610-1.) Dr. Heath testified that significant pain *can*, but does not always, result from an infiltration of thiopental and that Ohio’s protocol does not address how the execution team should respond to such an event. Dr. Heath confirmed during subsequent questioning by the Court that the likelihood and severity of pain stemming from a thiopental infiltration varies and has not been quantified in

⁶ During his description of the injuries that he observed to Broom, Dr. Heath provided for the benefit of the record a brief description of exactly what an IV catheter consists of. Dr. Heath explained that the administration of an IV catheter involves the insertion into a vein of a hollow-tipped needle that is surrounded by a catheter or sheath. Once the needle and catheter are inserted into a vein, a blood flow should flow back into the hub to indicate that the needle and catheter have found a vein. At that point, Dr. Heath explained, the practitioner would slide or ease the catheter forward off of the needle and further into the vein, and then slowly extract the needle, leaving the catheter in place in the vein.

terms of percentages. Dr. Heath also questioned the ability of the medical team personnel to even observe and recognize an infiltration, in view of the fact that they would not be bedside or even in the room.

Dr. Heath characterized Plan B as “a disaster.” Dr. Heath explained that in the event that the State employs Plan B, it is “inevitable” that one or more inmates will experience a distasteful, disgusting spectacle of an execution. Dr. Heath testified that he found inexplicable why Ohio did not elect as a backup plan that which numerous other states have implemented and that the federal government specifies as its primary method of accessing the inmate’s venous system—namely, a “central line.”⁷ Dr. Heath testified that the use of central line for scenarios when peripheral IV access cannot be obtained is far more preferable than the intramuscular injection set forth in Ohio’s Plan B because using a central line “is tried and true.” During cross-examination, Dr. Heath confirmed that in his opinion, the intramuscular dose prescribed in Plan B is highly likely to cause death.

The primary problem with Plan B, according to Dr. Heath’s direct examination testimony, is the fact that it will not produce an immediate or fast transition to unconsciousness. Dr. Heath explained that no method of achieving the desired effects of a drug is slower than via intramuscular injection. Juxtaposed with the fact that Ohio law requires an execution to be “quick and painless,” Ohio’s election of an intramuscular injection as a backup plan makes no sense. Dr. Heath testified that during the several or many minutes that it will take for an inmate to transition to unconsciousness following the injection, he “will progress through increasingly

⁷ Dr. Heath explained that a “central line” involves the use of large, long IV catheter whose tip, once inserted at one of three locations on the body—the jugular vein in the neck, the subclavian vein below the collar bone, or the femoral artery in the groin—will come to rest within several inches of the heart.

severe impairments of his or her cognitive faculties.” (Doc. # 610-1, at 6 ¶ c.) Dr. Heath testified, consistent with his Declaration, that an inmate could experience and exhibit any or all of the following and in varying degrees of severity: confusion, combativeness, disinhibited speech, delirium, anxiety, fear, euphoria, dysphoria, delusional ideation, hallucinations, sensory distortions, and disorientation. (*Id.* at 6-7 ¶ c.) Dr. Heath stated in later testimony that hydromorphone also has the propensity to cause agonizing intestinal cramping.

During cross-examination, Dr. Heath disagreed that the adverse side effects that could occur in an execution setting are similar to those that could occur, and are acceptable, in a clinical setting, such as when a person undergoes a colonoscopy. Dr. Heath insists both that the dosages of the drugs proscribed in Plan B’s intramuscular injection are vastly lower in a clinical setting and that the range and severity of adverse side effects is dose-specific and likely to increase proportionately with the dose.

Consistent with his Declaration, Dr. Heath implored Defendants’ expert, Dr. Mark Dershwitz, to develop a pharmacokinetic and pharmacodynamic analysis of Plan B just as Dr. Dershwitz has done predicting the results of the administration of a single massive dose of thiopental. Dr. Heath insists that it is possible to do so and should be undertaken, even in spite of the individual-specific variations that are inherent in the intramuscular injection prescribed by Plan B and in spite of the assumptions that would be necessary because of the lack of available data concerning such doses of midazolam and hydromorphone. Dr. Heath explains that it is important to try to predict not only how long a person might take to transition from consciousness to unconsciousness, but also the range and severity of side effects the person is likely to experience during the time before he loses consciousness.

In response to the Declaration of Dr. Mark Dershwitz, submitted in support of Defendants' memorandum in opposition to Biros's emergency motion, Dr. Heath emphasized several points. First, Dr. Heath insisted that the transition from consciousness to unconsciousness following the intramuscular injection provided for in Plan B likely would take longer than three or four minutes and could even take "tens of minutes." Dr. Heath also insisted that the side effects experienced and exhibited by an inmate following Ohio's Plan B injection *would* be greater and more likely—in other words, proportional relative to such a massive dose. Finally, Dr. Heath testified that in his opinion, it is likely that a significant number of inmates subjected to Plan B will become nauseated and vomit. This is important to note, Dr. Heath explained, because at a minimum, the inmate could have vomitus pouring out of the side of his mouth, and at worse, the inmate could breathe in the acidic gastric contents, which is a violent and traumatic sensation to experience. Dr. Heath disagreed that the possibility of an inmate vomiting would be lessened by his unconsciousness. In later testimony, Dr. Heath likened the suffering associated with aspirating on one's own acidic gastric contents to "water-boarding," only worse.

Dr. Heath also testified as problematic the fact that a broad range of absorption rates exists from an intramuscular injection of midazolam and hydromorphone. Dr. Heath's Declaration explains that "[t]hese factors will produce, in an unpredictable manner, great variation in the length of time during which the prisoner is conscious but has very disrupted mentation." (Doc. # 610-1, at 7 ¶ e.)

Concerning any consequences associated from a scenario during which an inmate is administered a certain amount of thiopental and then because of infiltration receives Plan B's intramuscular injection of midazolam and hydromorphone, with an unspecified amount of

thiopental already in his bloodstream, Dr. Heath testified that he had not considered that issue.

Dr. Heath testified that any amount of thiopental in the bloodstream would affect a person's circulation, which *could* in turn affect that person's absorption of drugs injected intramuscularly and prolong the amount of time it takes for the drugs injected intramuscularly to take effect.

That said, Dr. Heath testified that that possibility is not the "biggest problem" and that "other bigger problems" are presented by Plan B.

Dr. Heath concluded his direct examination testimony by expressing surprise that Ohio would elect, following consultation with a medical expert, to select a method of delivering lethal drugs for an execution—intramuscular injection—that the national veterinary association and Ohio's own code expressly prohibits for the euthanasia of domestic animals.

Following Dr. Heath's testimony, the Court admitted into evidence without objection the following exhibits: Plaintiff's TRO Motion Exhibit A, consisting of multiple photographs of Romell Broom following the State's attempt to execute him; Dr. Heath's Declaration attached to Biros's emergency motion (Doc. # 610-1); the depositions filed in Case No. 2:04-cv-1156 of Director Terry Collins, Dr. Carmelita Bautista, Warden Phillip Kerns, Nurse Roseanna Clagg, Captain Miller, Edwin Voohries, Romell Broom, and team members #'s 9, 17, 21, 10, and 8; Plaintiff's motion for partial summary judgment (Doc. # 589); and Ty Alper's law review article entitled "The Truth About Physician Participation In Lethal Injection Executions." The Court also admitted into evidence without objection all of the testimony and evidence developed during the March 2009 hearing as well as the Opinion and Order issued as a result of that hearing. (Doc. # 471.).

2. Dr. Mark Dershwitz

Defendants called as their sole witness Dr. Mark Dershwitz, who also testified via telephone. As with Dr. Heath, Dr. Dershwitz testified before this Court in Biros's March 2009 hearing and the Court has already set forth his background and qualifications as an expert in the field of anesthesiology. At the outset of Dr. Dershwitz's testimony in the instant hearing, the parties stipulated to his qualification as an expert in his field and this Court recognized the same.

Dr. Dershwitz's testimony went straight to Plan B of Ohio's new execution protocol. Dr. Dershwitz explained the manner in which an inmate subjected to Plan B would die: through a cessation of breathing and then subsequent death of the organs as a result of the deprivation of oxygen. Regarding the directive in Ohio law that death by execution be "quick and painless," Dr. Dershwitz testified that Plan B's intramuscular injection would cause the inmate to lose consciousness and stop breathing in less than ten minutes and likely in the range of six to eight minutes. Dr. Dershwitz characterized as "variable" the amount of time after cessation of breathing that it would take the inmate to die.

In subsequent testimony, Dr. Dershwitz opined that it could take ten minutes or longer following cessation of breathing for the inmate to die. Dr. Dershwitz reminded that the inmate would not experience pain following loss of consciousness and noted that the possible adverse side effects described by Dr. Heath also were not painful. Concerning Dr. Heath's testimony about the agonizing intestinal cramping or biliary pain that could result from hydromorphone, Dr. Dershwitz explained that although small doses could indeed result in such pain, a dose as large as that prescribed in Plan B would render the inmate incapable of experiencing any pain. During cross examination, Dr. Dershwitz reiterated his belief that an inmate who has been administered Ohio's Plan B would stop breathing within six to eight minutes following the

injection and would lose consciousness before that. Dr. Dershwitz also estimated the amount of time between the injection and death to be sixteen to twenty minutes. Subsequently during cross examination, Dr. Dershwitz testified that he expected someone who had been administered Plan B's dose of midazolam and hydromorphone to become sleepy within two minutes and to become unresponsive within four minutes. During the period of up to four minutes before the inmate becomes unresponsive or loses consciousness, Dr. Dershwitz characterized as "rare and unlikely" the chance that the person would experience the adverse side effects associated with those drugs. To that point, Dr. Dershwitz emphasized again his disagreement with Dr. Heath's assertion that the number or degree of side effects that a person might experience increases if larger doses than those administered in a health care setting are administered.

Dr. Dershwitz attempted to explain why he believed that it was not possible for him to generate detailed pharmacokinetic predictions similar to those that he has prepared concerning the intravenous administration of thiopental. Dr. Dershwitz explained that there exists no high resolution data detailing blood concentrations from frequent samplings immediately and then within minutes following an intramuscular injection of hydromorphone. Dr. Dershwitz also explained that the inherent interindividual variability of responses to an intramuscular injection of hydromorphone complicate his ability to develop pharmacokinetic predictions. That said, Dr. Dershwitz testified that hydromorphone was so chemically similar to morphine that he is able to draw conclusions from a relatively recent European study detailing blood concentrations following an intramuscular injection of morphine, albeit with the first sampling having occurred ten minutes following the injection and reflecting that the concentrations already were beginning to decline after ten minutes. Dr. Dershwitz explained that because of the massive dose

prescribed in Plan B, an inmate would not be required to have peak concentration in order to experience cessation of breathing. Dr. Dershwitz testified that even considering interindividual variability, a person given Plan B's dose would experience cessation of breathing in less than ten minutes.

Concerning the likelihood, according to Dr. Heath, of Plan B's intramuscular injection causing nausea, vomiting, and possible asphyxiation from the inhalation of vomitus, Dr. Dershwitz attempted to clarify the difference between vomiting and passive regurgitation as it relates to Dr. Heath's prediction. Dr. Dershwitz testified that vomiting does not occur when a person is unconscious and that a person will not aspirate from inhalation of gastric contents while conscious because a person who is conscious will have airway reflexes. Thus, according to Dr. Dershwitz, if an inmate aspirates by inhaling gastric contents generated by passive regurgitation, the inmate will necessarily be unconscious and incapable of feeling pain.

Dr. Dershwitz likened the adverse side effects that Plan B's intramuscular injection might produce to those that a clinical or therapeutic dose of the same two drugs would produce, such as when a person undergoes a colonoscopy. Dr. Dershwitz acknowledged that a person administered a combination of hydromorphone and midazolam in a clinical setting would receive far lower doses than those prescribed in Plan B, but disagreed that larger doses result in more and/or more severe side effects or a greater likelihood of side effects. Addressing each of the possible adverse side effects identified by Dr. Heath, Dr. Dershwitz testified that at the dosages prescribed in Plan B, any of those side effects were possible but not likely. Dr. Dershwitz would expect one receiving that dosage to become "quite sleepy" within one to two minutes.

Dr. Dershwitz testified during cross examination that it was after the September 15, 2009

attempt to execute Romell Broom that Dr. Dershwitz was first contacted by the State of Ohio concerning Ohio's exploration of alternative drugs and/or delivery methods for carrying out executions. Dr. Dershwitz testified that during the end of September, the State requested him to draft a letter addressing the general viability of an intramuscular protocol consisting of midazolam and an opioid. Dr. Dershwitz did not know who first suggested a combination of those two drugs. Ultimately, Dr. Dershwitz provided data detailing names, doses, and effects of the most concentrated forms of commercially available opioids that are commonly administered to human beings by intramuscular injection. Dr. Dershwitz does not know who made the decision to select hydromorphone but knew that it is the most potent of the opioids that he had listed and learned that it was obtainable by Ohio. Dr. Dershwitz testified that the State devised Plan B following a series of oral and written communications between the State and him. Dr. Dershwitz estimated that he expended perhaps a total of ten hours on this matter from the time the State first contacted him.

Regarding the training or qualifications necessary to administer Plan B, Dr. Dershwitz testified that the process of giving an injection is "pretty easy." He also testified that because monitoring the effects of an intramuscular injection pursuant to Plan B involves simply assessing the inmate's breathing, any emergency medical technician generally should be qualified to do that.

Following the conclusion of Dr. Dershwitz's testimony, the State offered and the Court admitted into evidence Dr. Dershwitz's Declaration and Addition to Declaration attached in support of Defendants' memorandum in opposition. (Docs. # 614-1 and 614-2.)

Because Dr. Heath and Dr. Dershwitz remained on the telephone line listening to each

other's testimony, the Court afforded each expert an opportunity to respond to the other's testimony. Dr. Heath emphasized that:

- ◆ the rapidly ascending concentration of Plan B's two drugs will produce a wide and unpredictable range of effects in inmates;
- ◆ the amount of the dosages is relevant to the number and severity of the side effects that are likely to result;
- ◆ before an inmate administered Plan B transitions to unconsciousness, the inmate will experience blunted reflexes short of unconsciousness sufficient to make possible aspiration or asphyxiation from the inhalation of regurgitated gastric contents, which is so unpleasant as to likely startle the inmate back into wakefulness;
- ◆ Dr. Dershwitz did not "endorse" Plan B and Dr. Heath would like to hear Dr. Dershwitz do so;
- ◆ Dr. Dershwitz's testimony that it would take twenty to thirty minutes for Plan B drugs to reach peak effect and that death by Plan B would be achieved three times faster than with a single intravenous injection of thiopental was inconsistent with previous declarations or testimony; and
- ◆ that Dr. Heath wonders whether Dr. Dershwitz would stake his professional reputation on the estimates that he predicted as to Plan B.

Dr. Dershwitz, in turn, emphasized:

- ◆ that his testimony that death following administration of Plan B would occur three times faster than following administration of an intravenous injection of

thiopental meant a time of death as measured by “flat lining,” which takes longer than a time of death measured by the heart stopping because electrical activity from a heart is discernable even after that heart stops;

◆ that as the massive doses prescribed in Plan B, it is not necessary for the drugs to reach their peak effect in order for the inmate to lose consciousness, stop breathing, and die;

◆ that he stands by his estimates concerning Plan B even without generating a pharmacokinetic model predicting estimates and effects;

◆ that although he is reluctant to use the word “endorse” with respect to any execution protocol, he is willing to state that an inmate administered Plan B is very unlikely to suffer any pain;

◆ that he stands by his belief that an inmate who receives Plan B’s doses will experience similar side effects as a patient who receives far lower doses of the same drugs in a clinical setting;

◆ there is only a small likelihood that an inmate administered Plan B might vomit and then cough or spit out the vomitus; and

◆ that it is his belief to a reasonable degree of scientific certainty that an inmate administered Plan B will experience no undue suffering.

II. Analysis

A. Temporary Restraining Order

The Sixth Circuit Court of Appeals has explained the inquiry involved in addressing a motion for either a temporary restraining order or for a preliminary injunction:

“When ruling on a motion for [injunctive relief], a district court must consider and balance four factors: (1) whether the movant has a strong likelihood of success on the merits; (2) whether the movant would suffer irreparable injury without the injunction; (3) whether issuance of the injunction would cause substantial harm to others; and (4) whether the public interest would be served by issuance of the injunction.”

Chabad of S. Ohio & Congregation Lubavitch v. City of Cincinnati, 363 F.3d 427, 432 (6th Cir. 2004) (quoting *Blue Cross & Blue Shield Mut. of Ohio v. Columbia/HCA Healthcare Corp.*, 110 F.3d 318, 322 (6th Cir.1997) (citations omitted)). *See also United States v. Edward Rose & Sons*, 384 F.3d 258, 261 (6th Cir. 2004) (quoting *Washington v. Reno*, 35 F.3d 1093, 1099 (6th Cir. 1994)). The court of appeals has further explained that a district court should not consider the foregoing factors as prerequisites to be met; rather, these factors are to be balanced in a weighing of the equities involved. *Edward Rose & Sons*, 384 F.3d at 261. This Court shall therefore proceed with the foregoing inquiry as it relates to Biros’ request for a temporary restraining order.

Ohio’s method of execution by lethal injection is a flawed system. Previously, this Court concluded that the weaknesses that pervaded this system were not so profound that they rose to the level of constitutional dimension so that they presented this Court with a violation of the Eighth Amendment to the United States Constitution. Thus, despite troubling concerns that existed with Ohio’s former written lethal injection protocol⁸ and the unwritten customs and practices that surrounded that protocol, this Court concluded based on the evidence that Biros had failed to demonstrate a strong or substantial likelihood of success on the merits of his § 1983

⁸ Similar to other courts entertaining challenges to lethal injection protocols under 42 U.S.C. § 1983, this Court follows the parties’ lead in “us[ing] the term ‘protocol’ to encompass not only the quantities, preparation, injection, and the actual drugs administered during the execution process, but also all policies, procedures, and staff qualification requirements.” *Walker v. Epps*, 587 F. Supp. 2d 763, 766 n.3 (N.D. Miss. 2008).

claims.

Then Ohio changed its protocol. The State first took the laudable step of inserting into a revised written protocol the admirable unwritten customs and practices that saved the former written protocol. The State thereafter took the incomprehensible step of abandoning strict adherence to the revised written protocol in an effort to execute Romell Broom. Caught in the backlash of that debacle, the State then took what Defendants' counsel correctly described at the December 4, 2009 hearing as the bold step of introducing a revised written protocol that made history by moving to a one-drug protocol employing IV access and the use of 5-gram doses of sodium thiopental and an alternate two-drug protocol that employed intramuscular injection as its form of delivery.

This leads to the issue before the Court today: Has Kenneth Biros demonstrated a likelihood of proving that Ohio's November 30, 2009 execution protocol is unconstitutional?⁹ As with most questions presented by this litigation, the answer to this deceptively simple question is complicated.

The Court once again begins with *Baze v. Rees*, 128 S. Ct. 1520 (2008). In *Baze*, the United States Supreme Court addressed whether Kentucky's lethal injection protocol violated the Eighth Amendment. The resulting decision generated seven opinions: a plurality opinion authored by Chief Justice Roberts and joined by Justices Kennedy and Alito; a separate concurring opinion by Justice Alito; an opinion authored by Justice Stevens, who concurred in judgment; an opinion authored by Justice Scalia and joined by Justice Thomas, both of whom

⁹ It bears noting that the burden is on Biros. He at times attempts to place the burden on Defendants, such as in his briefing when he states that "Defendants should also be required to provide evidence that they have some reasonable basis for believing that the usage of [the protocol drugs] will result in a humane death." (Doc. # 610, at 10.)

concurring in judgment; an opinion authored by Justice Thomas and joined by Justice Scalia; an opinion by Justice Breyer, who concurred in judgment; and a dissent authored by Justice Ginsburg and joined by Justice Souter. Although distinctly fractured in its rationale, the United States Supreme Court came to a majority judgment that upheld Kentucky's protocol. Two things are clear concerning the meaning of *Baze* for Ohio.

First, pursuant to the United States Supreme Court, Kentucky can continue to conduct executions under its existing protocol without violating the Eighth Amendment. This would be useful on its face if Ohio's protocol were identical to Kentucky's protocol, which it is not, or if Ohio had logically adopted Kentucky's protocol following *Baze*, which it did not.¹⁰

Second, what *Baze* teaches is that § 1983 challenges to a State's lethal injection protocol need not be confined merely to challenging the drugs and dosages employed. As Biros noted in his briefing related to the March 2009 proceedings, "[t]he Baze plurality went well beyond a mere discussion of the three drugs, delving deeply into the details of the drugs and equipment used, and the training of the executioners."¹¹ (Doc. # 460, at 11.) Biros himself continues to raise challenges to just such components of Ohio's protocol by targeting more than simply the

¹⁰ At the March 2009 hearing, the Court asked Defendants' counsel why Ohio had not simply adopted Kentucky's protocol as its own in light of the fact that *Baze* unquestionably stands for the proposition that the Kentucky protocol does not violate the Eighth Amendment. Counsel offered no response whatsoever but simply sat down at counsel's table.

¹¹ Not just the plurality, but a majority of the United States Supreme Court actually looked to the implementation of the entire protocol and not just the use of the protocol drugs. Chief Justice Roberts and Justices Kennedy and Alito (the plurality) and Justices Ginsburg and Souter (the dissent) all addressed the details of administration and the safeguards employed. Justices Scalia and Thomas apply a more stringent perspective. Although it is unclear to what test Justice Stevens subscribes, he does look to the facts (*i.e.*, presumably the entire protocol and not just the drugs used) and concludes that they do not present a violation of the Eighth Amendment.

drugs employed under either alternative contained in the November 30, 2009 protocol.

In addressing Biros' motion for a temporary restraining order, the threshold question remains what standard or test this Court should apply. Absent a controlling rationale set forth by a majority of the high court, what can be gleaned from the diverse array of opinions in *Baze* is debatable. Some courts construing *Baze*, just as the counsel in this case often did during the March 2009 hearing, have treated the *Baze* plurality authored by Chief Justice Roberts as presenting a controlling rationale. See, e.g., *Emmett v. Johnson*, 532 F.3d 291, 298 n.4 (4th Cir. 2008) ("Because it represents the controlling opinion of the Court, all references to *Baze*, unless otherwise noted, are to the plurality opinion authored by the Chief Justice."); see also *Jackson v. Danberg*, No. 06-300-SLR, 2009 WL 612469 (D.Del. Mar. 11, 2009) (discussing *Baze* as dispositive without mentioning plurality nature of lead opinion); *Raby v. Johnson*, No. H-05-765, 2008 WL 4763677 (S.D. Tex. Oct. 27, 2008) (same). At least one commentator has inquired into the validity of this approach, cautioning that, "[u]nfortunately, the Supreme Court proved incapable of achieving even minimal majority consensus as to the interplay between the Eighth Amendment and lethal injection procedures." Justin F. Marceau, *Lifting the Haze of Baze: Lethal Injection, the Eighth Amendment, and Plurality Opinions*, 41 Ariz. St. L.J. 159 (forthcoming 2009) (manuscript at 2).¹²

This Court's interpretation of *Baze* thus begins again with the United States Supreme Court's direction as to how to construe a plurality opinion: "When a fragmented Court decides a

¹² While researching the issues involved in this litigation, the Court uncovered the cited law review article, which has not yet been published. The Court was able to obtain a copy of the useful text, but it appears not a copy that enables this Court to provide pinpoint citations to the precise page on which the quoted material will appear once published. The Court has therefore cited the article with pinpoints to its manuscript pages.

case and no single rationale explaining the result enjoys the assent of five Justices, ‘the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds’ ” *Marks v. United States*, 430 U.S. 188, 193 (1977) (quoting *Gregg v. Georgia*, 428 U.S. 153, 169 n.15 (1976) (opinion of Stewart, Powell, and Stevens, JJ.)). Unfortunately, actual application of this deceptively simple rule can of course be an exercise in frustration, if not futility. What sounds reasonable in theory to elevated courts often becomes mired in the pragmatic trenches of a trial court.¹³ This latter proposition bears noting because it unfortunately controls much of what has transpired in this litigation and in large part proves unnecessarily if not perhaps unfairly dispositive of a large portion of Biros’ argument.

That ambiguity in life is often unavoidable is a truism. *Avoidable* ambiguity in death

¹³ Some would suggest that plurality opinions in the capital context are not only of little value, but actually harmful. See Marceau, *Lifting the Haze of Baze: Lethal Injection, the Eighth Amendment, and Plurality Opinions*, 41 Ariz. St. L.J. 159 (manuscript at 9, 11) (stating that “[w]hen majority agreement is limited to the judgment, it is neither obvious as a matter of history, nor intuitive as a matter of constitutional interpretation, that pluralities do anything more than announce a judgment in a particular case” and that “the simplicity of the [*Marks*] rule’s articulation—identifying the ‘narrowest grounds’—obscures the enigmatic, even unworkable, application of the doctrine.”). One commentator asserts:

[T]here are few, if any, procedural rules that have proven more enigmatic for lower courts than *Marks*. The application of the *Marks* rule has been characterized by widespread acknowledgment by courts across the country that the determination of the “narrowest grounds” is never “a straightforward endeavor.” Thus, lower courts are left in an impassable procedural morass. The [Supreme] Court instructs that they are bound by the precedent of pluralities, and yet definitional clarity of regularity in the rule’s application is entirely lacking. This sort of procedural uncertainty is not countenanced by the Eighth Amendment.

Id. (manuscript at 28 (footnotes omitted)). This Court expresses no opinion on the ultimate conclusion reached by that commentator, but agrees with the simple proposition that pluralities often introduce more problems than they resolve.

penalty jurisprudence rings less necessary or true when pragmatic compromise would promote clarity, provide direction, and perpetuate legitimacy. It is thus distinctly unfortunate that there is no clear holding from *Baze* resulting from a principled and pragmatic compromise by a majority of the United States Supreme Court. In fact, Chief Justice Roberts, the author of the lead opinion in *Baze*, has explicitly recognized that when “no opinion commands a majority of the Court,” lower courts will have “to feel their way on a case-by-case basis.” *Rapanos v. United States*, 547 U.S. 715, 758 (2006) (Roberts, C.J., concurring). Crediting in the instant case that proposition, this Court has felt its way throughout this litigation to arrive at the conclusion that Biros has failed to demonstrate a strong likelihood of success on the merits under not only the standard of the plurality opinion authored by the Chief Justice, but also under any standard recognized by any Justice who concurred in the judgment in *Baze*.¹⁴

Under the rationale of the lead opinion, it apparently does not matter whether a protocol addresses all of the concerns an inmate may raise. Chief Justice Roberts, Justice Kennedy, and Justice Alito found Kentucky’s protocol sufficient without even addressing all of the arguments raised by the inmate concerning the alleged unconstitutionality of the protocol. The lead opinion described the inmate’s allegations regarding the risk of improper administration as follows:

Petitioners contend that there is a risk of improper administration of thiopental because the doses are difficult to mix into solution form and load into syringes; because the protocol fails to establish a rate of injection, which could lead to a failure of the IV; because it is possible that the IV catheters will infiltrate into surrounding tissue, causing an inadequate dose to be delivered to the vein; because of inadequate facilities and training; and because Kentucky has no reliable means of

¹⁴ The Court notes the theoretical argument that, given the inherent taint of uncertainty that pervades the doctrine, application of the *Marks* rule in the death penalty context itself constitutes an Eighth Amendment violation. This theory is predicated on the underlying premise that heightened due process applies. See Marceau, *Lifting the Haze of Baze: Lethal Injection, the Eighth Amendment, and Plurality Opinions*, 41 Ariz. St. L.J. 159 (manuscript at 24).

monitoring the anesthetic depth of the prisoner after the sodium thiopental has been administered.

Baze, 128 S. Ct. at 1533. Addressing the majority of this list, the plurality neglected to discuss the alleged difficulty of loading sodium thiopental into syringes and the rate of injection; the opinion proceeds from discussing the trial court's factual findings concerning mixing to addressing issues related to IVs, and it never touches in its analysis section upon the adequacy of the facilities. Much of the analysis that is presented by the *Baze* plurality relates to Biros' current arguments, the crux of which is that Ohio's protocol fails to require sufficient qualifications and training for the execution team personnel, that the protocol fails to provide oversight of these individuals, and that—because the team cannot properly administer the drug employed in Plan A and given the nature of the drugs involved in Plan B—the protocol presents unconstitutional risks.

Biros' motion for a temporary restraining order is relatively narrow given the breadth of arguments he could raise. He specifically raises the following arguments as to why he believes that he is entitled to injunctive relief:¹⁵ First, Biros argues that what counsel have designated as the protocol's Plan A fails to address the IV access issues apparent in the attempted execution of Romell Broom on September 15, 2009. He posits that the protocol relies on "unqualified and insufficiently competent medical technicians to obtain IV access, still requires that IV access is to be obtained exclusively through peripheral veins, and still lacks any limitations as to how long

¹⁵ Biros also emphasizes, especially via counsel's oral argument at the December 4, 2009 hearing, that he is entitled to injunctive relief because the State has allegedly rushed to adopt a new and untested protocol. This is not the test. Even a hastily prepared and adopted protocol might yield constitutional results, whereas a protocol resulting from intensive labor and deliberations over many hours or even years might present unconstitutional risks. Thus, simple speed is not the issue; the issue is the resulting risks of what was adopted regardless of how quickly that occurred.

the team is permitted to poke and stick in an effort to obtain IV access.” (Doc. # 610, at 8-9.)

Biros reasons that the foregoing purported circumstances subject him to a risk of severe pain arising from venous access issues.

Incorporating by reference arguments more fully set forth in a motion for partial summary judgment (Doc. # 589), Biros also argues that the November 30, 2009 protocol’s reliance on drug delivery through peripheral vein access and allegedly “incompetent and insufficiently trained technicians to establish and maintain that IV access, subjects [him] to the prospect of a death that is not the ‘quick and painless death’ unambiguously required by Ohio Rev. Code Ann. § 2949.22(A)” (Doc. # 610, at 9). Biros argues that this constitutes a substantive due process violation in contravention of his Fourteenth Amendment rights.

Biros also asserts in his motion for a temporary restraining order that the use of midazolam and hydromorphone under what has been characterized as the Plan B approach in the November 30, 2009 protocol is impermissible human experimentation. Noting that “[t]hese drugs have never before been used in the execution of a human being,” Biros raises a litany of possible scenarios that may or may not result in a parade of horrors. He reasons that all of the questions regarding possible side effects and drug interactions “need to be answered before any court should permit an execution to take place that may use such drugs.” (Doc. # 610, at 10.)

Biros’ contentions concerning alleged problems with the IV lines are unpersuasive. The evidence demonstrates that, like Kentucky, Ohio “has put in place several important safeguards to ensure that an adequate dose of sodium thiopental is delivered to the condemned prisoner.” *Baze*, 128 S. Ct. at 1533. For example, Ohio requires that the medical team member who administers or “pushes” the drugs through the IV lines be certified to administer drugs. Another

medical team member who can also administer drugs is present as a back-up during the execution process. Both individuals possess intermediate EMT certifications and either work or have worked in that capacity. The third medical team member is a twenty-year phlebotomist who has received training on the insertion of heparin locks in addition to the general training on needle insertion that is related to her primary duty of drawing blood. The *Baze* plurality found such general credentials sufficient, concluding that the “most significant” safeguard in place was “that members of the IV team must have at least one year of professional experience as a certified medical assistant, phlebotomist, EMT, paramedic, or military corpsman.” *Id.* The plurality also noted that Kentucky utilizes a phlebotomist and an EMT. *Id.*

Ohio’s medical team members do not have daily experience establishing IV catheters for inmates, however, as the actors involved in the Kentucky protocol do. Team Member # 10 testified, for example, that the team member who is a phlebotomist, Team Member # 9, is not required to perform daily IVs. Team Member # 17, the new executioner who has the primary duty of administering the drug under Plan A, is currently a corrections officer, and this Court credits his March 2009 testimony that he regularly starts IV lines while performing his volunteer EMT duties. There was no evidence that this Court credits that the “resume experience” these individuals have with IV lines is insufficient or falls below an acceptable level. Although one would assume that those who establish IVs on a daily basis may be more adept at performing the procedure, this is of course a matter that varies from individual to individual. Based on the testimony before this Court, there is no basis to conclude that Ohio’s protocol in this area is readily distinguishable from the Kentucky protocol approved in *Baze* in terms of the broad qualifications of the medical personnel employed.

Paper qualifications do not necessarily translate in all cases to the practical ability to perform a job. The halted Broom execution in September 2009 is therefore of considerable importance to the issue of whether the November 30, 2009 protocol is constitutional. Although the revised protocol resulted from the failure that was the Broom execution attempt, the same qualifications and training issues link both the prior protocol and the new protocol, and the same medical team members were involved.

Recognizing this, Dr. Heath correctly testified at the December 4, 2009 hearing that Plan A is employed under the same circumstances as the Broom execution attempt and the executions of Clark and Newton. Dr. Heath explained that there was nothing in the medical history that he obtained from Broom to suggest poor IV access and that the weightlifting in which Broom had engaged would have increased vein access. Dr. Heath testified that following the failed attempt at execution, he had examined Broom's arms and observed no scars suggesting past drug use, a habit that Broom denies. Thus, Dr. Heath testified, the execution team's failure to obtain IV access to Broom's "easy" veins means either that the medical team members are incompetent or unable to perform their duties successfully due to the environment surrounding the execution. He described the angle of needle entry that he could detect had been employed during the attempted execution as "bizarre," as well as "certainly poor" and "futile" technique. Dr. Heath also cited the failure to secure the IV once access was obtained and the resulting spray of blood as another example of poor practice, in addition to a technician's failure to wear gloves while working on Broom, an oversight that Dr. Heath explained would increase the risk of failure in securing the tubing involved. In other words, Dr. Heath identified several instances of purported poor practice and expressed the opinion that the medical team members should have been able, if

competent or able to function competently to obtain and maintain IV access on Broom.

This Court notes that, pursuant to Section VI(B)(1)(B) of the November 30, 2009 protocol, “[a]pproximately thirty (30) days prior to the scheduled execution date . . . [the execution team] will begin conducting training sessions no less than once per week until the scheduled date of execution.” (Doc. # 607-1, at 3-4.) It is not readily apparent to this Court how the execution team could have engaged in four weeks of relevant training in preparation for Biros’ scheduled December 8, 2009 execution when the protocol to be used did not become effective until November 30, 2009, but there has been no evidence presented to this Court that there has been a violation of the protocol. The Court cannot speculate as to whether relevant training occurred prior to adoption of the revised protocol or whether the State is actually considering conducting an execution employing a protocol containing procedures on which no one has been trained and for which there has been less practice than that minimum degree guaranteed by the written protocol.

Given the nature of the evidence presented, as well as the dearth of evidence on some points, this Court cannot conclude that Biros has presented a persuasive argument that the medical team members are insufficiently trained, incompetent, or unable to perform competently under the circumstances of an Ohio execution. Nor can the Court conclude that the protocol’s adherence to delivery of sodium thiopental through IV access via peripheral veins is a structural flaw of the protocol.¹⁶

¹⁶ Dr. Heath testified in March 2009 that even the three-drug protocol could be a humane method of execution provided a sufficient amount of sodium thiopental was properly administered to the inmate. Although Dr. Heath disagreed with the *Baze* plurality that a lay individual’s observation of the IV site was satisfactory, even he conceded that this was the conclusion the plurality reached. At the December 4, 2009 hearing, both experts agreed that proper delivery of sodium thiopental would result in a painless death.

Anecdotal evidence does not reflect well on Ohio's protocol. But what happened with Broom, however distasteful, does not necessarily mean that the medical team members are incompetent or unable to perform competently under the pressures of the execution or under pressures exerted by the execution team management. Dr. Heath himself did not attempt to obtain vein access but only identified veins and opined on theoretical access. Significantly, his hands-on examination did not enable him to render an informed opinion on the viability of maintaining a vein once obtained. Deposition testimony indicates that Team Member # 9, who was working on Broom's left arm, and Team Member # 21, who was working on Broom's right arm, had each identified and obtained veins multiple times. Although access was established multiple times, the veins "blew" or collapsed each time (save for the notable failure to secure the vein before moving the bag that rendered the one vein access point they had established unusable, a stunning error that while certainly not excusable, cannot be regarded as across-the-board damning evidence of outright blanket incompetence). Finding a vein is one thing, while maintaining access is another. This Court therefore concludes that although Biros has raised noteworthy questions regarding the competence of the medical team members or their ability to perform competently, he has failed to present evidence demonstrating that he will likely prevail in demonstrating their lack of qualifications or competence leading to inevitable unconstitutionality.

The competence of the medical team members has long been a component of this litigation, as in other lethal injection litigation. The *Baze* plurality credited as a safeguard bolstering competence the ten practice sessions Kentucky requires each year. *Id.* at 1534. March 2009 testimony in the instant case indicates that Ohio conducts required practice sessions

in the four consecutive weeks leading to each execution, with the team conducting at least one complete walk-through of the execution and practicing on a fake arm by pushing water as opposed to the (then) three actual drugs used through the lines at least twice at each practice. Here again Ohio essentially parallels Kentucky, although Kentucky's practices include the siting of IV catheters into volunteers. *Id.* Section VI(B) of the November 30, 2009 protocol also provides for such

This leads to Biros' argument that the protocol is flawed because it fails to establish a cap or limit on the amount of time the medical team has in which to obtain successful and maintained IV access. Unlike Kentucky, Ohio still does not place a one-hour time limit on establishing the primary and backup IVs. *See Baze*, 128 S. Ct. at 1534. Of more significant pragmatic concern is the established fact that, as several witnesses testified during the March 2009 hearing, Defendants insist that they can take until midnight to complete the execution process.

Previously, this Court noted that, surely at some point, repeated attempts at initiating or restarting the execution process would rise to the level of cruel and unusual punishment. For example, perhaps nine hours of performing procedures to access veins may cross the line; a lesser or greater amount of time might be the limit, which may or may not fall within the midnight expiration of the death warrant. March 2009 hearing testimony indicated that after approximately an hour of effort, a recess would be taken and there would be discussions as to whether to proceed. Testimony at that hearing also indicated that although statutory responsibility for the execution is invested in the warden, such a decision would as a practical matter proceed up the bureaucratic chain of command to Ohio's governor.

What happened on September 15, 2009 with Broom is therefore also relevant to the time-

limitation debate. There, the Governor ultimately made the decision to stop Broom's execution after the passage of a considerable amount of time, approximately more than double that permitted in Kentucky. One court of appeals judge has construed this action to mean that Ohio, via the Governor, indeed has a *de facto* time limit falling far short of the day-long window witnesses espouse:

[T]he Governor's decision not to proceed with the execution of Broom, after two hours of attempting to run IV lines on him, confirms the virtue of the procedure and the Governor's responsible behavior in implementing it. The postponement option is designed to avoid "cruel and unusual" punishment, not to further it. That is why [another inmate's] reliance on the number of failed efforts to run a needle/IV line into one of Broom's veins—18 in total—does not help him. It instead shows why the Governor sensibly called off the execution and *proves he would do the same if [another inmate] ran into a similar problem*. Why assume an execution protocol is unconstitutional when one of the humane features of the protocol—that the State will not continue trying to access a usable vein beyond a sensible time limit—is being followed?

Reynolds v. Strickland, 583 F.3d 956, 960-61 (6th Cir. 2009) (Sutton, J., dissenting) (emphasis added). This Court does not agree with this interpretation of the Governor's prior action. Far from *proving* anything, the Governor's actions in regard to Broom simply indicate what the Governor did that day and under those circumstances. Without necessary context, what happened in that one anecdotal instance hardly establishes a bright-line rule or even an apparent custom and practice. For that matter, what transpired does not "show[] why the Governor sensibly called off the execution" as described above. Only the Governor can explain precisely *why* he did anything.

This last point necessitates discussion of an unfortunate but soon to be obvious truth about today's decision: Ultimately, Biros' failure to obtain a temporary restraining order has perhaps less to do with the merits of his case or the substantive law involved than it does with

the procedural and pragmatic realities that have boxed him into an expedited track toward execution under a fledgling protocol.

Previously, Biros and his fellow plaintiffs sought to take the deposition of the Governor in this litigation, particularly in regard to the Governor's Broom-related actions. The Governor opposed having his deposition taken, and the disagreement came before this Court. After this Court could not mediate any sort of compromise between the parties during a telephone conference, the matter was set for briefing and an eventual decision by this Court. On October 13, 2009, Biros therefore joined his fellow plaintiffs in this litigation in filing a motion to compel the deposition of the Governor. (Doc. # 570.) Thereafter, on October 19, 2009, the case came on for a final pretrial conference. At that conference, the parties again discussed with the Court that Defendants were exploring the development of a new protocol. This had been a topic of ongoing discussion in this litigation.

During these discussions, the State, via Defendants' counsel, had reached out to Plaintiffs' counsel, including Biros' counsel, about obtaining their input and the input of Dr. Heath on the development of a new protocol. Repeated assurances had been made that the State was working on a new protocol, and as a result, matters had often been continued in this litigation to afford the State time to develop a protocol—at which point, it had been discussed, Plaintiffs' counsel and experts would be consulted. As before in this litigation, the parties expressed a desire to work toward this outcome but noted the need for time. As before, despite the lengthy delays that have marked if not at times marred this litigation, this Court was willing to afford the parties the time they sought.

Accordingly, the parties and this Court discussed at the October 19, 2009 final pretrial

conference how best to address their dealings in light of pending motions in this litigation and pending deadlines—not only briefing deadlines, but also deadlines such as the scheduled December 8, 2009 execution of Biros. At the request and by the agreement of the parties, the Court agreed to continue the trial date in this litigation to enable the parties to work together on a revised or altogether new protocol. The parties characterized these efforts as falling within the broad category of discovery. This Court and the parties therefore agreed on new discovery dates that would enable all involved to address the issues that a new protocol would present.

This led to discussion of Biros' December 8, 2009 execution date. Counsel for Biros of course urged this Court to stay the execution in light of the anticipated joint efforts toward development of a constitutional protocol. Counsel for Defendants stated that their clients opposed a stay and represented that Defendants might seek to file an appeal. Despite this stated position, the parties then went about *jointly* drafting proposed language that the Court could employ in its final pretrial order. Defendants' counsel asked the Court repeatedly to avoid issuing an injunction in connection with the stay under discussion. In fact, when the Court's law clerk drafted a proposed order using the term injunction, counsel requested its deletion. Because the analysis turned on the Sixth Circuit's recent holding in *Reynolds v. Strickland*, 583 F.3d 956 (6th Cir. 2009), and the need for discovery both involving the development of a revised or new protocol and related to the facts of what happened with the Broom execution attempt, the eventual Order read as follows:

Plaintiff Kenneth Biros is currently scheduled to be executed on December 8, 2009. Based on the outstanding discovery issues, particularly uncompleted discovery related to the attempted September 15, 2009 execution of Romell Broom, as well as this Court's review and evaluation of the discovery materials developed after the Broom execution attempt and filed with this Court, the Court concludes that it must revisit the issue of whether a stay of execution is warranted for Biros. Such a stay

would preserve the status quo, would prevent Biros' claims in this litigation being rendered moot by his scheduled execution, and would enable Biros to litigate his case at trial using the discovery developed as a result of this Order.

Informing this Court's consideration of Biros' situation is the recent Sixth Circuit decision of *Reynolds v. Strickland*, No. 08-4144, 2009 WL 3166083 (6th Cir. Oct. 5, 2009). In *Reynolds*, the Sixth Circuit considered whether Ohio death row inmate Lawrence Reynolds was entitled to a stay of execution based on Ohio's May 2009 revision of its lethal injection protocol and the purported pattern of difficulty in performing executions, including the events of the attempted Broom execution. *Id.* at *1. The *Reynolds* majority concluded that "[g]iven the important constitutional and humanitarian issues at stake," a stay was warranted in order to enable the undersigned to conduct "a comprehensive review of these issues for both Reynolds and Broom." *Id.* Accordingly, the majority granted a stay of execution and remanded the case to this Court "for fact-finding and evidentiary hearings on the merits of [the] arguments." *Id.*

Notably, this precedent did not turn on the conventional injunctive relief inquiry into whether the party seeking a stay of execution had demonstrated a substantial likelihood of success on the merits. Instead, the Sixth Circuit focused on the need to develop the facts, which targets a need to engage in discovery leading to an evidentiary hearing. The same rationale that resulted in the court of appeals' staying Reynolds' execution applies to Biros. This Court cannot say whether Biros is entitled to an ongoing stay of execution based on facts arising from the Broom execution attempt until this Court knows what those facts are. The uncompleted discovery involves these and related facts. Given the issues involved and the instruction of the appellate court, Biros is as entitled to a stay affording him time for discovery and to be heard at trial on the merits of his claims. Therefore, in order to promote the just disposition of this action and over the objection of Defendants, the Court concludes that a stay of execution is necessary. *See* Fed. R. Civ. P. 16(c)(2)(P) (permitting a court to take "appropriate action" to facilitate the just disposition of an action); *Reynolds*, 2009 WL 3166083. **Thus, it is ORDERED, ADJUDGED, and DECREED that the State of Ohio, and any person acting on its behalf, is hereby STAYED from implementing an order for the execution of Kenneth Biros issued by any court of the State of Ohio until further Order from this Court.** The Court reserves the right to reconsider this Order staying the execution of Biros should a new protocol as developed by Defendants render Biros' claims regarding the May 2009 protocol moot.

(Doc. # 590, at 2-4.) Unlike in the many past instances throughout this litigation where

Defendants indicated they did not oppose a motion or opposed a motion but had indicated no intent to appeal—a means by which Defendants arguably obtained political cover after having

agreed to motions previously and apparently catching some expression of public displeasure or displeasure from one or more state actors—Defendants promptly appealed the Court’s Order, which they described as “granting an *injunction* to intervenor Kenneth Biros.” (Doc. # 596, at 1 (emphasis added).) The State then adopted its current protocol without consulting counsel for Plaintiffs or Dr. Heath.

On appeal, a three-judge panel of the Sixth Circuit reversed Biros’ stay. *Cooey v. Strickland*, No. 09-4300, 2009 WL 4061632 (6th Cir. Nov. 25, 2009). The appellate panel did so without distinguishing *Reynolds*, where another panel afforded an inmate a stay based on the need to determine whether that inmate evaded the statute of limitations. Moreover, the three-judge panel for Biros reversed without discussing Federal Rule of Civil Procedure 16(c)(2)(P), upon which this Court relied in issuing an order that, in the language of that rule, “facilitat[ed] . . . the just, speedy, and inexpensive disposition of the action.” Instead, the November 25, 2009 per curiam appellate opinion explained that as a result of the November 30, 2009 protocol (which of course had not yet even become effective), “the district court’s stay order must be vacated because any challenge to Ohio’s three-drug execution protocol is now moot.” *Cooey*, 2009 WL 4061632, at *2. The appellate panel also stated that “[i]n granting a stay of execution, the district court based its reasoning on concerns related to the old procedure. Because the old procedure will not be utilized on Biros, no basis exists for continuing the stay previously in effect.” *Id.*

Much has been written in the court of appeals as to whether the underlying mootness analysis employed to reach the above-quoted conclusion is correct, and it is not this Court’s obligation to offer an opinion here. This lower court follows the instructions of the court of

appeals. The Court is concerned, however, that despite the incomplete record before the three-judge panel and ultimately before the Sixth Circuit when it declined to hear the matter *en banc*, a strikingly fundamental and no doubt inadvertent mischaracterization of this litigation has occurred. It is incumbent on this Court to provide a fuller record here today.

As *Baze* teaches, execution litigation need not be—and *this* litigation is not—just about any drugs employed under any version of an execution protocol. This case is also and has long been about the training, qualifications, and procedures that carry through from one protocol to another regardless of what drugs are or are not used in any applicable protocol. Given this truism, the Court is uncertain how to interpret the three-judge panel’s conclusion that “[t]here is no basis in the record or for that matter in common sense for assuming that the State will do anything other than what it has told us in court filings and what it has told the public at large: it has changed its execution protocol, and it intends to apply the substantially modified protocol to *Biros*.” *Id.* There is some basis in the record for not believing that the State will adhere to its protocol. The State did not in regard to *Broom* on September 15, 2009. But even if the *Broom* facts were not known to the court of appeals, the three-judge panel no doubt had before it the record in this litigation, which includes the pleadings that indicate that more than just the drugs are being challenged, which means that predicated mootness based on drugs fails to credit the complexity of this case. This Court’s concerns regarding the need for a stay to enable discovery related to components of the old procedure that carry forth into the new procedure.

The end result of the above is that *Biros* will likely not be able to conduct continued discovery as to what transpired in regard to *Broom* and present that evidence to this Court because the *Broom* hearing commences on December 9, 2009, the day after the State will have

attempted to execute Biros. Obvious as well is that Biros was unable to explore and develop the Broom facts fully for use related to this temporary restraining order in part due to this Court's discovery stay.

One specific example of the foregoing is especially notable. As during the March 2009 proceedings, Biros has again failed to present any evidence as to what time limit the Governor would impose, if any, or what considerations would influence that decision. Part of this is as a direct result of the parties' final pretrial conference agreement, reached in discussions with and approved by this Court, to delay consideration of the motion to compel the Governor's testimony. In its Order memorializing the final pretrial conference, the Court stated that "[g]iven the need for additional discovery, the Court shall hold all pending motions in abeyance. The Court shall establish new dates for the completion of briefing on these motions and for their disposition in subsequent consultation with the parties." (Doc. # 590, at 2.) This Court distinctly regrets holding that motion in abeyance and taking Defendants at their word that consultation between the parties on a new protocol would occur, fully recognizing that regret does little to remedy the fact that information is now not before this Court and will not be before the court of appeals. Although Biros could have asked the Court to revisit the motion after adoption of the new protocol, he did not.

Also contributing to the dearth of evidence is that, instead of dispensing with a deposition and calling the Governor as a witness at the December 4, 2009 hearing, Biros yet again elected to leave this aspect of his hearing presentation unfinished. This again means that his argument that an execution could take most of an entire day is ultimately based on speculation (even if that speculation is amply fueled by comments from decisionmakers under the Governor's level or

others such as spokespeople). Assuming only for the sake of argument that such an extended execution would violate the Eighth Amendment, this Court must decline to find a strong likelihood of proving unconstitutionality based on conjecture. It is simply not known what the actual time limit in Ohio is, and it is Biros' burden to produce evidence of that time limit and argue any unconstitutional impact it may present. Biros has not met his burden, for reasons both within and outside his control.

Several other comments are necessary in regard to the issue of IV access and the delivery of sodium thiopental. The *Baze* plurality relied upon the presence of the Kentucky warden and deputy warden in the execution chamber with the inmate during the execution as an additional safeguard against IV problems such as infiltration. *Id.* Ohio continues to echo this approach. The SOCF warden and the execution team leader are present with the inmate in the death chamber during the execution. At all times, the warden and team leader are to watch the IV site for signs of infiltration, and the sleeve of the inmate is no longer permitted to block ready visual access to the IV site. Numerous witnesses testified in March 2009 as to the physical signs that accompany infiltration, and this Court credits that testimony. Although many of the team members lack medical training, this Court is satisfied that they are aware of at least the most obvious signs of such a problem. Additionally, Former Team Member # 18 also testified that he observes the inmate from his location on the other side of the glass, watching for signs of infiltration, and there has been no testimony that the individual who has assumed the role of administering the drug under Plan A will depart from such custom and practice.

These facts do not wholly obviate concern for the fact that simple training that would address many of Biros' concerns is lacking. Citing various examples of flawed testimony, Dr.

Heath emphasized in his March 2009 testimony that numerous execution team members did not know what the former protocol drugs do or how they function, which implicitly undercuts the ability to make informed decisions. It made little sense to this Court that Ohio did not provide periodic substantive training to the execution team in obvious areas: the effect of the former protocol drugs, what to watch for in cases of infiltration, and how to ascertain consciousness, among other key areas. The *Baze* plurality found constitutional the Kentucky protocol without citing such training, which arguably suggests a lack of a constitutional mandate for this training. That may or may not be, but as this Court previously noted, such training cannot hurt and in fact could assist in preventing harm that if serious enough would rise to the level of an Eighth Amendment problem for the State. Perhaps following this cue, Section VI(B)(1)(b) of the November 30, 2009 protocol specifically provides for training on “the general nature and effects of the drugs that are used during the execution process,” “medication administration procedures, including the insertion of the IV needles and administration of intramuscular injections,” and “signs or symptoms of problems when administering medications” under the pre-execution training. (Doc. # 607-1, at 3-4.)

Like the *Baze* plurality, this Court is not persuaded that medical professionals of the sort called for by Dr. Heath must be involved in the execution process in order for the process to pass constitutional muster. The testimony neither supports such a mandate nor invalidates the competence of the state actors involved in the execution process. But the evidence does point to a need for training of the sort described above, so that the less credentialed but still acceptable execution team members can perform their tasks fully aware of the risks involved and how to guard against these risks. As noted, however, the record is silent as to whether training as called

for in the November 30, 2009 has been provided here, and it is Biros' burden to show that it has not.

In an effort to point to an intolerable risk of harm, Biros has directed this Court again and again to what he describes as "botched" executions (Doc. # 460, at 44), such as his prior reliance on the Clark execution and his more recent reliance on the Broom attempt,¹⁷ as evidence that Ohio's lethal injection procedures fail to pass constitutional muster. But regardless of whether the Clark execution rises to the level of a series of abortive attempts at lethal injection analogous to the hypothetical series of abortive attempts at electrocution that would demonstrate an objectively intolerable risk of harm that gives rise to an Eighth Amendment violation, *see Baze*, 128 S. Ct. at 1531, the procedures followed for Clark no longer exist without alteration. Following the Clark execution, Ohio implemented a number of changes to its written protocol. Significantly, participants in the State's execution process also admirably adopted unwritten procedures, most accurately characterized as custom and practice, and these procedures worked their way into the written protocol.

That the Clark execution no longer presents the Ohio execution landscape bears

¹⁷ Biros also previously directed this Court to the unidentified execution that Haviland testified he witnessed in which there was apparent infiltration and Former Team Member # 18 switched lines. Another execution to which Biros points is the execution of Christopher Newton. In neither instance is there evidence that the inmates were not unconscious by the time the second drug was administered under the former protocol, which means that there is no evidence of a substantial risk of serious pain. Although there was testimony concerning chest and chin movement by Newton following initiation of the drug administration, primarily by layperson Lowe, it was described by other witnesses as involuntary muscle twitching. There is no basis in this record to assign Newton's movement to the faulty administration of drugs, and Team Member # 12 testified that he did not detect suffering by Newton. Moreover, Newton's joking during the siting of his IVs in the holding cell undercuts designating the siting as presenting an intolerable risk of pain. If anything, the additional time taken with Newton in the siting and in the actual administration of the protocol drugs reflects the effect of safeguards added post-Clark.

emphasizing because it undercuts a primary, if not the primary, core of Biros' argument. What Biros previously failed to credit is that the custom and practice that developed in the post-Clark execution era provided what amounted to band aids on the written protocol so as to salvage any questionable and arguably notably deficient procedures employed in the Clark execution. The State since codified many if not all of those practices in the written three-drug protocol and again in the November 30, 2009 protocol. Thus, Biros' implicit reliance on the Clark procedures in making the specific arguments advanced in his motion for a temporary restraining order must be viewed within the requisite contextual framework of the current protocol. *See Nooner v. Norris*, Nos. 5:06CV00110 SWW & 5:07CV00173 SWW, 2008 WL 3211290, at *12 (E.D. Ark. Aug. 5, 2008) (recognizing evolution of protocol in concluding that "[t]he Court finds that the evidence presented regarding lethal injection executions that occurred in the past fails to demonstrate that Arkansas' current protocol exposes Plaintiffs to an objectively intolerable risk of pain"). As noted, some aspects of the protocol and procedures carry over, while the use of a revised drug plan certainly obviates other aspects.

Ohio has a system of redundancies in place in which no actor is left alone without observation. One medical team member mixes the drugs while watched by at least one additional state actor. Two medical team members are present in the holding cell while establishing heparin locks. The warden and the team leader together check for sufficient inmate unconsciousness and IV infiltration in the death chamber. One medical team member pushes the sodium thiopental while another medical team member is present in the equipment room, in addition to the narrator and other individuals. The same sort of scheme informs Plan B. In short, there are specific safeguards in addition to the general observations of team members by one

another and by the warden that protect against a team member underperforming in a manner that creates a likely risk of serious harm. These protections provide some safeguard against one unchecked individual deviating from permissible procedures. And although the protections may not be foolproof, none could be; there is always the risk of human error whether caused by inadvertence, misfeasance, or medical issues. What is important is that the risk is acceptably mitigated here so as to not rise to a constitutionally impermissible level.

The opposing expert witnesses agreed that Ohio's dose of sodium thiopental if properly administered is sufficient for the purposes of the execution. In March 2009, Dr. Dershwitz discussed his computer modeling and the effect of such a dose on the average individual to support his conclusion. Dr. Dershwitz again concluded at the December 4, 2009 hearing that if the sodium thiopental is administered as provided for in the Ohio protocol, then there is a miniscule chance of pain to the inmate. Dr. Dershwitz also previously testified that he believes that every medical professional who reviews or has reviewed the lethal injection protocols for inmates or states would agree. Moreover, there is insufficient evidence that the drug employed in Plan A and the drugs employed in Plan B present a sufficient risk under the *Baze* plurality because, as discussed below, the evidence fails to persuade that these drugs even meet the lesser standard of presenting an untoward risk.

There is no doubt that Ohio's procedures for conducting executions by lethal injection present an inherent risk of error. Every nuanced human endeavor presents a risk of error, and as the *Baze* plurality recognized, this can result in what has been rather innocuously described as an "innocent misadventure." *Baze*, 128 S. Ct. at 1531 (citing *Louisiana ex rel. Francis v. Resweber*, 329 U.S. 459, 471 (1947) (plurality decision)). There is also no doubt that Ohio's protocol

alleviates the likelihood of some of these risks while falling short of practices that could further minimize the risks associated with the administration of drugs and the taking of a life. But the inquiry is not whether there are risks of errors that could result in pain; any rational person would have to concede that there are. Rather, the standard is whether the protocol presents risks that are sure or very likely to cause needless suffering. *Id.* The *Baze* plurality recognized these concerns, explaining that “[s]imply because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of ‘objectively intolerable risk of harm’ that qualifies as cruel and unusual.” *Id.* Thus, absent such an objectively intolerable risk of harm, or a substantial risk of serious harm, the protocol passes constitutional concerns even with the natural risks that unavoidably arise. Based on the arguments and evidence before this Court, the Court cannot say that Biros has demonstrated a strong likelihood of success under the standard advanced by the *Baze* plurality.

This is not to say that a plaintiff can never prevail under the plurality standard. Additional evidence could be produced at the subsequent July 2010 trial on the merits, or a plaintiff might successfully present an argument based on Ohio’s departures from its protocol. But such speculation targets another day under changed circumstances, and today, under present conditions, Biros is not likely to succeed on the merits proceeding under the plurality’s standard.

The Court also concludes that Biros has failed to demonstrate a strong likelihood of success if the plurality encompassed the specific implementation discussed by Justice Alito. Writing in a separate concurrence, Justice Alito explained that because the constitutionality of the death penalty was not before the high court, the assumption is that the death penalty is constitutional. *Baze*, 128 S. Ct. 1520, 1538 (Alito, J., concurring). He explained that there is

also “the assumption that lethal injection is a constitutional means of execution,” a proposition that Biros does not dispute. *Id.* (citing *Gregg v. Georgia*, 428 U.S. 153, 175 (1976) (joint opinion of Stewart, Powell, and Stevens, JJ.)). Justice Alito then summarized the ethics rules of medical professionals, physicians and nurses alike, before concluding that

[o]bjections to features of a lethal injection protocol must be considered against the backdrop of the ethics rules of medical professionals and related practical constraints. Assuming, as previously discussed, that lethal injection is not unconstitutional *per se*, it follows that a suggested modification of a lethal injection protocol cannot be regarded as “feasible” or “readily” available if the modification would require participation—either in carrying out the execution or in training those who carry out the execution—by persons whose professional ethics rules or traditions impede their participation.

Id. at 1540. This analysis undercuts Dr. Heath’s testimony urging involvement of medical professionals and undercutting the execution team members whom he asserts the medical professionals should replace. As discussed more fully below, there is no credited evidence that such involvement is likely even if it is possible. All that need be said at this juncture is that under Justice Alito’s analysis, Biros fails to present a feasible plan for involving medical professionals of the sort Dr. Heath endorses—even if Biros has provided this Court with a law review article indicating that there is apparently more doctor participation than previously recognized in this record.

Nor can Biros meet Justice Alito’s requirement that well-established scientific consensus supports the inmate’s positions on modification of Ohio’s protocol. *Id.* Biros’ reliance on essentially Dr. Heath does not evade Justice Alito’s admonition that “public policy on the death penalty . . . cannot be dictated by the testimony of an expert or two or by judicial findings of fact based on such testimony.” *Id.* at 1541-542. The Court recognizes that this proposition cuts both

ways, applying to inmates and states alike, while remaining cognizant that the ultimate burden of proof is on Biros.

Having concluded that Biros has failed to demonstrate a strong likelihood of success on the merits under the rationale supported by Chief Justice Roberts, Justice Kennedy, and Justice Alito, as well as under the parameters set forth by Justice Alito separately, the Court now turns to whether Biros is likely to succeed in light of the opinion of Justice Stevens.

In a departure from his peers, Justice Stevens stated that although he has reached the conclusion that the imposition of the death penalty is patently excessive and cruel and unusual punishment in violation of the Eighth Amendment, *Baze*, 128 S. Ct. 1520, 1551 (Stevens, J., concurring in judgment), he would not depart from precedent on that basis and therefore regarded Kentucky's protocol as constitutional under *both* the plurality's standard and under the Ginsburg-Breyer-Souter standard. *Id.* at 1552. This analysis essentially adds nothing to the issue of what standard Biros must satisfy.

Perhaps the least in need of extended discussion are the separate opinions of Justice Scalia and Justice Thomas. Both individuals concurred in judgment, but joined only one another's opinions. Justice Scalia's text addressed concerns raised by Justice Stevens regarding the propriety of the death penalty as a criminal penalty, as opposed to opining on the applicable standard to be employed in evaluating the implementation of that penalty. *Baze*, 128 S. Ct. 1520, 1552 (Scalia, J., concurring in judgment). Justice Thomas' opinion addressed the latter concern directly, stating that he was writing separately because he "cannot subscribe to the plurality opinion's formulation of the governing standard." *Baze*, 128 S. Ct. 1520, 1556 (Thomas, J., concurring in judgment). Justice Thomas explained:

As I understand it, [the plurality] opinion would hold that a method of execution violates the Eighth Amendment if it poses a substantial risk of severe pain that could be significantly reduced by adopting readily available alternative procedures. This standard—along with petitioners’ proposed “unnecessary risk” standard and the dissent’s “untoward risk” standard—find no support in the original understanding of the Cruel and Unusual Punishments Clause or in our previous method-of-execution cases; casts constitutional doubt on long-accepted methods of execution; and injects the Court into matters it has no institutional capacity to resolve.

Id. (citations omitted). Thus, Justice Thomas concluded, “in my view, a method of execution violates the Eighth Amendment only if it is deliberately designed to inflict pain.” *Id.* Although rejecting any standard that required courts to weigh the advantages and disadvantages of different execution methods or procedures, Justice Thomas allowed that “[t]o the extent that there is any comparative element to the inquiry, it should be limited to whether the challenged method inherently inflicts significantly more pain than traditional modes of execution such as hanging and the firing squad.” *Id.* at 1563.

Biros has never argued in this litigation that any of Ohio’s methods of execution by lethal injection were designed to deliberately inflict pain. Nor could he successfully raise such an argument based on the evidence before this Court. This Court finds that none of the state actors involved in Ohio’s execution system displayed any evidence whatsoever of an inclination to inflict pain deliberately. To the contrary, the Court has been impressed by many of the state actors’ genuine concern for fulfilling the imposition of the criminal penalty at issue with professionalism and humanity. For example, the Court stated in its April 21, 2009 Opinion and Order that “Voorhies in particular impressed this Court with his concern for the inmate and his notable dedication to improving the process; he is a credit to the Ohio Department of Rehabilitation and Correction.” (Doc. # 471, at 150-51.) Given the vague or conflicting

deposition testimony as to events that occurred during the failed Broom execution, it is yet unclear as to what role Voorhies played in procuring the impermissible involvement of Dr. Carmelita Bautista in the attempt to obtain IV access to Broom's veins. But although the Court is gravely disappointed in all of the state actors who negligently or willfully violated the protocol, this Court has no reason to conclude that any of the actors were motivated by an intent to deliberately inflict pain. Even those state actors who displayed less explicit concern—those bureaucrats who disengaged by presenting the protocol as something that has arisen and exists external to and essentially untouched by their efforts—nonetheless displayed an apparent genuine concern for avoiding the infliction of pain, even if they took a less active role in acting to ensure pain avoidance and even if they were perhaps motivated not by humane or constitutional concerns but simply by a desire to avoid being responsible for an unconstitutional execution. Justice Thomas asserted that “[t]he evil the Eighth Amendment targets is intentional infliction of gratuitous pain, and that is the standard our method-of-execution cases have explicitly or implicitly invoked.” *Id.* at 1560. There remains no evidence here that Ohio's lethal injection procedures were designed for the deliberate infliction of pain.

There is also no evidence that the procedures are implemented in such a way so as to deliberately inflict pain. And, to the extent it could be relevant, there is no evidence that the protocol inflicts more pain than hanging or the firing squad, to cite Justice Thomas' examples. Thus, the evidence does not present a strong likelihood of *Biros* prevailing under the standard advocated by Justice Thomas and joined by Justice Scalia. Ohio's current protocol is “designed to eliminate pain rather than to inflict it.” *Id.* at 1563.

This again leaves the opinion of Justice Breyer. Agreeing with the standard set forth by

Justice Ginsburg in her dissent, which Justice Souter joined, Justice Breyer concurred in judgment and described the “relevant question” as “whether the method creates an untoward, readily avoidable risk of inflicting severe and unnecessary suffering.” *Baze*, 128 S. Ct. 1520, 1563 (Breyer, J., concurring in judgment) (citing *Baze*, 128 S. Ct. 1520, 1572 (Ginsburg, J., dissenting)). He identified as interrelated relevant factors the degree of risk presented by the method of execution, the magnitude of pain involved, and the availability of alternatives, while emphasizing “that the legal merits of the kind of claim presented must inevitably turn not so much upon the wording of an intermediate standard of review as upon facts and evidence.” *Id.* at 1563.

Similar to the deliberate-infliction-of-pain standard, there is arguably also no need for extended discussion as to whether *Biros* has demonstrated a strong likelihood of prevailing under the “untoward risk” standard shared explicitly only by Justices Breyer, Ginsburg, and Souter. Six other members of the United States Supreme Court have indicated views either adopting or recognizing as possibly correct a more stringent standard. Chief Justice Roberts, Justice Kennedy, and Justice Alito all assert a stronger standard, and Justice Scalia joins Justice Thomas in adhering to an even more difficult standard to satisfy. Justice Stevens traveled a middle ground in his separate opinion, concluding that Kentucky’s protocol was constitutional under *both* the plurality’s standard and under the Ginsburg-Breyer-Souter standard—without identifying which standard he credits as the correct interpretation of precedent. *See id.* at 1552 (Stevens, J., concurring in judgment).

Assuming again for purposes of completeness that the “untoward risk” standard can somehow be considered as having any theoretical modicum of practical vitality (despite it

potentially gathering at best support by four justices and being outright rejected by five justices), this Court concludes that Biros has not shown a strong likelihood of prevailing under the standard. Just as Justice Breyer found in regard to Kentucky's protocol, the evidence presented here fails to overcome the conclusion that the November 30, 2009 protocol itself does not pose a significant and unnecessary risk of inflicting severe pain. *See Baze*, 128 S. Ct. at 1563-566.

There was certainly conflicting testimony presented on this last point at the December 4, 2009 hearing. In regard to the possibility of pain under Plan A, Dr. Heath testified that he had reviewed literature consisting of a small number of case reports. In some cases, infiltration of sodium thiopental resulted in "severe" pain in individuals who had received the drug and suffered infiltration, while in other cases, individuals who had received the drug and experienced infiltration suffered little or no discomfort. When asked directly by this Court whether the literature indicated the level of pain involved, Dr. Heath emphasized the variable nature of the experiences among the relatively small number of individuals discussed in the literature, noting only that some had experienced severe pain. When asked whether the literature indicated what percentage of persons experienced pain, Dr. Heath pointed to the few case reports in the literature and stated that the percentage could not be quantified.

In regard to pain under Plan B, Dr. Heath was much more explicative. In recounting what Dr. Dershwitz deemed a "laundry list" of potential side effects—which Dr. Heath explained were included on the Plan B drugs' package inserts—Dr. Heath stated that an individual being executed under Plan B could experience "great" pain should his or her gastric contents enter into the mouth and then be inhaled. Dr. Dershwitz was much more skeptical, emphasizing that for most individuals, an inmate being executed would not experience such pain given the body's

reactions and the probable time involved between gastric distress and loss of consciousness.

Of significant weight here is that Dr. Heath stated that he did not believe it was possible to estimate what percentage of patients will experience such circumstances. But for those individuals who did, he explained, it would be a “very distressing, ugly execution.” This Court is concerned about the possibility of great pain that Dr. Heath targets.¹⁸ The Court is also acutely aware that one of the effects of the Sixth Circuit’s November 25, 2009 Order is to prevent individuals such as Dr. Heath from having the time to examine the Plan B drugs and dosages that this Court’s vacated stay might have afforded. When the testimony suggests only an indeterminate theoretical possibility of such a horrendous outcome, however, this Court cannot say that Biros has met his burden even under the lesser untoward risk standard.

Nor does Biros’ argument that Ohio can and should use better trained personnel distinguish the instant case from Justice Breyer’s analysis on that issue. *Baze*, 128 S. Ct. at 1566. The Court recognizes that Dr. Heath testified during both hearings that doctors and nurses would be willing to step forward if called upon to assist in the State’s execution process, even at what he deemed an essentially theoretical risk to their professional certifications. The Court again cannot credit this speculative testimony to the extent that Biros would like, given that Dr. Heath was not qualified to render an opinion on the beliefs of medical practitioners in Ohio and did not conduct any form of study or polling as to the willingness of such Ohio professionals to

¹⁸ It does not concern this Court, however, that the Plan B drugs are apparently not employed in animal executions in Ohio. The *Baze* plurality agreed with the Sixth Circuit in rejecting the argument, previously adopted by Biros, that the three-drug protocol is unconstitutional based on the practices of veterinarians. *Baze*, 128 S. Ct. at 1535-536 (citing *Workman v. Bredesen*, 486 F.3d 896, 909 (6th Cir. 2007)). By analogy, such a rationale disposes of Biros’ argument, essentially made by Dr. Heath during the December 4, 2009 hearing, regarding the use of the Plan B drugs and veterinary practices.

become involved in executions. In effect, Biros through Dr. Heath asks this Court to trust his expert on this issue without a basis for doing so. This the Court will not do.

Nor will the Court accept the blanket proposition that only select categories of individuals can constitutionally perform the medical functions associated with an execution. There can always be better qualified individuals to perform medical tasks of the sort involved in the execution process, regardless of any individual's certification or title. But the Constitution does not require that the best or almost-best trained and qualified individuals perform these tasks. Rather, the Constitution as interpreted under the untoward risk standard only requires that those individuals performing the execution procedures be competent enough to avoid presenting a readily avoidable risk of severe pain. Ohio's reliance on intermediate EMTs—Team Member # 17 and Team Member # 21—and a phlebotomist—Team Member # 9, whom the facts indicate the State sent for cautionary, additional training despite no apparent evidence of any deficiency on her part—satisfies this standard, even if the State could or arguably should exceed the baseline of training and credentialing to which it adheres. Given the issues surrounding the failed Broom execution and the concerns Dr. Heath raised regarding the inability to access veins and the angles of insertion employed, it would be curious if not negligent if the State did not routinely provide its medical team members extensive additional training at State expense. Just because an individual may reach constitutionality by not falling below a minimum level of competence does not in turn ensure continued satisfaction—and it should never invite complacency with the less than admirable performance of duties.

This Court must again note one additional fact regarding Justice Breyer and the plurality opinion in *Baze*. Despite adhering to a different standard than the plurality, Justice Breyer

explained that in addressing whether “Kentucky should require more thorough testing as to unconsciousness,” he concluded that he “must agree with the plurality and Justice Stevens” that “[t]he record provides too little reason to believe that such measures, if adopted in Kentucky, would make a significant difference.” *Id.* at 1566. Previously, this Court agreed and extended Justice Breyer’s rationale to what was largely an analogous record in this case. Ohio’s former three-drug protocol taken as a whole was close enough to Kentucky’s protocol to avoid presenting sufficient grounds to conclude that it poses a risk of unnecessary suffering. There was no basis for concluding that the absence of monitoring devices, especially those that monitor brain wave activity as described in the testimony of Dr. Heath and Dr. Dershwitz, or the lack of brushing an apparently unconscious inmate’s eyelashes create an untoward risk presenting unconstitutionality. The deletion of the riskier drugs from Plan A in the November 30, 2009 protocol largely obviates the concern for enhanced consciousness testing techniques and devices.

This is not to say that Ohio should not consider employing any devices and practices that would aid the execution team in ascertaining the status of the inmate. The more additional precautions against errors the better. Building prophylactic measures, even redundancies, into the system of execution only serves common sense even if not necessarily constitutionally compelled. The question is whether the machines or practices employed would be of much if any substantive benefit, as noted above in the plurality opinion discussion of monitoring mechanisms, and especially in light of the revised protocol. The parties have not focused their latest efforts on such devices, and this Court merely notes their possible utility here. The absence of more safeguards does not concede the inadequacy of the current protocol under the

Baze plurality. *See Baze*, 128 S. Ct. at 1537 (explaining that “an inmate cannot succeed on an Eighth Amendment claim simply by showing one more step the State could take as a failsafe for other, independently adequate measures”).

The analysis presented in this section mandates the conclusion that Biros has again failed to demonstrate a strong likelihood of success on the merits of his § 1983 claim under *any* standard set forth by *any* opinion in *Baze*. The Sixth Circuit has explained that in regard to the issue of whether injunctive relief should stay an execution date, “the absence of any meaningful chance of success on the merits suffices to resolve this matter.” *Workman*, 486 F.3d at 911. Because this Court has concluded that the first factor weighs against a continued preliminary injunction, the Court need not and does not discuss the remaining factors. Accordingly, Biros is not entitled to injunctive relief based on the Eighth Amendment argument he has presented.

Similarly, Biros has failed to present a strong likelihood of success in regard to his Fourteenth Amendment Due Process claim. As noted, Biros contends that the Ohio Revised Code creates statutory liberty and property interests in a quick and painless execution. Ohio Rev. Code § 2949.22(A) (“a death sentence shall be executed by causing the application to the person, upon whom the sentence was imposed, of a lethal injection of a drug or combination of drugs of sufficient dosage to quickly and painlessly cause death.”). Incorporating by reference arguments Plaintiffs made in a summary judgment motion (Doc. # 589), Biros asks this Court to consider this alternate ground as the basis for a temporary restraining order. The incorporated summary judgment briefing primarily targets Ohio’s former three-drug protocol and the carryover component of IV access issues most clearly exemplified by the Broom execution attempt, upon which Biros relies.

The problem for Biros with this argument is that this Court cannot say that he has shown a substantial likelihood of prevailing. There is a dearth of authority as to the meaning of the statutory language.¹⁹ There is also a lack of relevant argument presented by the incorporation. Plaintiffs (which includes Biros) summarize the argument in their summary judgment briefing as follows:

Defendants will continue to deny Plaintiffs' constitutionally protected rights so long as they refuse to modify their written protocol to eliminate pancuronium bromide and potassium chloride from their lethal injection cocktail, with injection of the drugs by way of a peripheral IV delivery mechanism. Defendants concede that death by a massive overdose of sodium thiopental would be quick and painless, which is Defendants' statutory mandate.

(Doc. # 589-2, at 22.) The November 30, 2009 protocol change addresses the core of Biros' contention. Although the Court can by analogy extend the summary judgment briefing rationale to Plan B, the Court has credited the testimony of Dr. Dershwitz that the Plan B drugs will avoid pain in nearly all patients. Given this testimony and what amounts to a failure to provide an on-point argument targeting the new protocol and the risks of pain under Plan A and Plan B, this Court cannot fashion an argument for Biros and then grant a stay based upon that argument. Biros has therefore again failed to meet his burden.

Having discussed those specific challenges that Biros has brought, a comment is in order

¹⁹ The Ohio Supreme Court has not opined on the meaning of the statute. Lawrence Reynolds, another inmate on Ohio's death row involved in litigation before this Court and discussed tangentially above, previously presented a form of the "quick and painless" argument to the Ohio Supreme Court. *See In re Reynolds*, No. 09-1740, Compl. at 8 ¶ 27, filed in the Ohio Supreme Court on Sept. 28, 2009. The state court dismissed Reynolds' complaint for a writ of habeas corpus without providing a reason other than its consideration of the respondent warden's motion to dismiss, which only argued that habeas corpus was an improper mechanism through which to assert such a claim. *See In re Reynolds*, No. 09-1740, slip op. (Ohio S. Ct. Oct. 1, 2009).

regarding what he has failed to bring. As noted, Biros has pointed in his Fourteenth Amendment argument to numerous instances of where the State departed from the protocol in place during the September 15, 2009 attempt to execute Broom. Biros has also presented this Court with an Eighth Amendment argument that focuses on competence via concerns over qualifications and training, vein access issues, and time limitations. Nowhere in his motion for a temporary restraining order does Biros link the departure facts underlying the Fourteenth Amendment argument to present his Eighth Amendment argument.

This Court has grave concerns about the combination of the pattern of deviation exhibited by many of the state actors involved in the execution team, the amount of discretion that exists under Ohio's protocol, and the lingering doubts regarding competency or the ability to perform that surround execution attempts. The lack of confidence arising from these cumulative concerns could point to an unacceptable risk that violates the Constitution if the argument and evidence were presented. It is possible that Biros has missed this argument. It is also possible that he intended to make such an argument following the hearing set to commence on December 9, 2009, the day after he is now to be executed. The Sixth Circuit's vacation of the stay this Court had ordered to permit the development of any relevant Broom facts strips Biros of that opportunity.

Perhaps this is a lost opportunity that would have at best yielded facts insufficient to present a prevailing argument. Or perhaps not. What is more certain is that this Court's review of the deposition transcripts related to the Broom proceeding are often disturbing. For example, the depositions point to the impermissible participation during the Broom execution process of Dr. Bautista, who although not a member of the execution team was invited into the holding cell,

who apparently made one or more attempts to insert IVs into Broom's ankles, and who may or may not have hit bone in making these attempts. It is unclear to what extent, if any, deliberate or inadvertent disinformation had been provided to Dr. Bautista to procure her coming to the death house to assist, although some of the potential disconnect admittedly could be attributed to language barriers and possible reluctance on Dr. Bautista's part to be forthcoming.

What is clear is that Dr. Bautista joined in the team's efforts as testified to by Team Member # 8, as well as Team Member # 11, who ironically also testified that they would never do something that is not in the protocol, but then could not explain why the doctor was present and engaged in the proceedings. Team Member # 10 confirmed the participation, as well as Dr. Bautista and Team Member # 17. Voohries testified that he had prompted Kerns to consider asking Dr. Bautista to come to the holding cell, but purportedly only to advise (which Voorhies thinks is permitted under the new protocol's section on general attendance at executions). Kerns in turn testified that involving Dr. Bautista was his idea and that he had mentioned it to a nurse. Collins also testified that it was Kerns' idea and that he had not necessarily approved it. Perhaps the most apt comment on this notable departure from the protocol, however well intentioned it may have been, comes from the testimony of Team Member # 9, who stated, "I look up and she's present [in the holding cell]. And I'm like, dear God, what is she doing here?" That is a question that requires an answer.

Other deposition testimony points to similarly odd departures that together evince a troubling pattern of disregarding the very protocol that is supposed to control and provide safeguards for the execution process. The obvious question becomes how far this deviation extends. Substantive protocol deviations, however potentially beneficial or well intentioned,

nonetheless evince disregard for the sanctity of adherence to the procedures purportedly designed to satisfy the Constitution. Previously, this Court noted that concluding that deviation from the core execution procedures likely would require an impermissible drawing of an unwarranted inference upon an inference: first, that deviation from *any* provision of the written protocol is possible, and second, that the actors involved would or are likely to deviate from the substantive core procedures. Accordingly, absent evidence to the contrary, this Court could not conclude that the remote, theoretical *possibility* of deviation from the core procedures presents a *likely* substantial risk of substantive harm. The Broom proceedings speak to this issue.

Too much discretion coupled with too little management regard for the protocol could suggest little regard for the Constitution. The testimony of Team Member # 11 and Team Member # 21 indicates that team members failed to discuss and plan for anticipated problems with accessing veins, including problems that were identified, at a minimum, by the nurse who had examined Broom upon his arrival at SOCF the morning before the execution. Team Member # 21 failed to attend a May 2009 training session required under paragraph Section VI(B)(1) of the protocol, as testified to by the team leader. Team Member # 10 also alluded to the possibility, based on the spacing of some summer executions, that not every execution was in fact preceded by a sufficient number of prior rehearsals as required in the written protocol. There was also an apparent failure to do a vein assessment on Broom the morning of the execution attempt.

Such incidents concern this Court and suggest a general sense of bureaucratic ennui rendering it the policy of the State of Ohio that it adheres to its execution protocol, except when it does not. Collins testified more than once that medical team members were frustrated and

concerned during the Broom incident and that they were intent upon continuing to try to obtain vein access because of their fear of being berated or ridiculed in the press and of being hailed into court for more testimony.

The Constitution is not an inconvenience to be circumvented. Its protections animate our society of laws and give Ohio the lawful authority it must wield to put a citizen to death. That the deviations perhaps reflect a sense of disdain for constitutional requirements by those who manage the execution warrants if not demands exploration. Dr. Heath testified that either the medical team members are incompetent or unable to perform their duties successfully due to the environment surrounding the execution. That environment may consist of a results-oriented culture in which all or some members of management pay only lip service to the Constitution. The Broom incident informs both of the possibilities Dr. Heath suggests, but this Court cannot fashion an argument that has not been presented to it and then consider that argument as the basis for a stay. Rather, the Court can only note for the court of appeals what potentially lies within the record evidence and recognize what needs further exploration.

B. All Writs Act

Biros argues that at the very least and certainly in the event that this Court declines to grant a temporary restraining order staying his execution, this Court should issue a stay of his execution under the All Writs Act, 28 U.S.C. § 1651(a). According to Biros, the All Writs Act authorizes “ ‘[t]he Supreme Court and all courts established by Act of Congress [to] issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law.’ ” (Doc. # 610, at 14 (quoting 28 U.S.C. § 1651(a)).) Asserting that courts have read this language broadly, Biros argues that federal courts may apply the All Writs Act to enjoin a state court proceeding when an injunction is necessary to preserve the federal

court's jurisdiction, to protect the integrity or enforceability of the federal court's existing judgments or orders, or to avoid disruption with the orderly resolution of litigation pending before the federal court. Biros has not persuaded this Court that the All Writs Act permits it to do that which the law governing the issuance or denial of temporary restraining order does not.

At least one federal court has squarely addressed and rejected the argument that Biros makes in the context of a request for a stay of execution pending the outcome of a § 1983 action filed by the inmate and others challenging the constitutionality of lethal injection. In *Ringo v. Lombardi*, No. 09-4095-CV-C-NKL, 2009 WL 1406980 (W.D. Mo. May 19, 2009), the federal district court denied the inmate's emergency motion for a preliminary injunction under the All Writs Act, explaining:

Skillicorn argues that an injunction staying his execution under the All Writs Act is appropriate because proceeding with his execution will deprive the Court of jurisdiction to hear this case. However, this lawsuit may proceed even in Skillicorn's absence. Therefore, his execution will not interfere with the Court's jurisdiction to determine whether the declaration of law sought by the Plaintiffs should be granted. Furthermore, the All Writs Act is not intended to expand the Court's jurisdiction, merely to preserve it. For that reason it has been held that the All Writs Act cannot be used to "thwart the proper application of the factors [normally] associated with the issuance or denial of a preliminary injunction." *Lambert v. Buss*, 498 F.3d 446, 454 (7th Cir. 2007) (stating that the All Writs Act is not an independent basis for granting a stay of execution; finding that defendant could not otherwise prevail on an Eighth Amendment cruel and unusual punishment challenge to lethal injection under 42 U.S.C. § 1983 because he had not shown a likelihood of success on the merits); *Cooey v. Strickland*, 484 F.3d 424, 425 (6th Cir. 2007) (denying motion for stay of execution under the All Writs Act where the plaintiff inmate did not demonstrate a basis upon which the court should exercise its equitable power to stay). Thus, the All Writs Act does not provide a basis for exercising the Court's equitable power to stay Skillicorn's execution unless the equitable factors justifying an injunction have been independently satisfied.

Ringo, 2009 WL 1406980, at *1. The Court finds *Ringo's* reasoning persuasive and the cases upon which Biros relies less so.

An injunction staying Biros's execution is not necessary to preserve this Court's jurisdiction over this matter because, as draconian as it may sound, this action may proceed even in Biros's absence. Further, even the Sixth Circuit in this very case has declined to issue a stay of execution under the All Writs Act where the intervenor plaintiff inmate failed to demonstrate a likelihood of success on the merits. *Cooey*, 484 F.3d at 425. Finally, even the cases upon which Biros relies that are not inapposite to the nature of this legal action and Biros's request for a stay of execution, *see Hill v. McDonough*, 464 F.3d 1256, 1258-59 (11th Cir. 2006), are less persuasive than *Ringo* and not binding as *Cooey* is. The Court is not persuaded that Biros is entitled to a stay of execution under the All Writs Act.

III. Conclusion

The Court must conclude, based on the evidence before the Court and the applicable law, that Biros is not entitled to a stay of execution because he has failed to demonstrate a strong likelihood of success on the merits of his claims. This is not to say that any of the various plaintiffs involved in this litigation are incapable of ultimately prevailing in this litigation. Ohio's post-November 30, 2009 execution system continues to be replete with inherent flaws that raise profound concerns and present unnecessary risks, even if it appears unlikely that Biros can, at this time, demonstrate that those risks rise to the level of violating the United States Constitution. Thus, although the fact that the evidence at this stage of the litigation does not present a likelihood of Biros prevailing on his claim of a constitutional violation proves dispositive of his request for a stay of execution, it does not foreclose the possibility that additional evidence will indeed prove that the problems with Ohio's policies and practices rise to the level of constitutional error.

As before, today's decision therefore neither holds that Ohio's execution protocol is constitutional nor unconstitutional. Rather, today's decision reflects only that at this juncture, Biros has not met his burden of persuading this Court that he is substantially likely to prove unconstitutionality.

Several additional comments are warranted. As this Court has previously noted, Defendants are charged with carrying out humane and constitutional executions and not with simply prevailing in litigation. Director Collins testified in March 2009 that the ultimate goal is for Ohio to be as humane as possible and as professional as possible in carrying out its lawful executions. But Collins also testified that he believes that the procedures then in place were as humane and the best they could be. He was incorrect. To its shame, the State of Ohio then proceeded to depart from its protocol in an effort to execute Romell Broom. Following that failed execution, the State, to its credit, sought to implement a new protocol that eliminated some but not all of the issues surrounding the former protocol. This is a commendable act even if the conduct of various state actors in litigating this case and working on the new protocol was arguably less than commendable.

It is beyond debate that there is no legal question as to whether the State of Ohio can execute Kenneth Biros. It can. The relevant questions that the United States Constitution requires be asked are *when* and *how*. Too often a layperson will hear of litigation such as this case and be offended, applying a rationale derived from a biblical understanding of justice. But the Constitution neither endorses nor tolerates an eye-for-an-eye, suffering-for-suffering approach to executions. Rather, the Constitution upon which this country is founded protects all citizens, even the worst among the citizenry who have engaged in the most reprehensible of acts.

In this context, the broad protections of the Constitution therefore turn a blind eye to the individual facts of the underlying crime and instead focus on rights, even the rights of those who gave their victims no such analogous consideration. Such fundamental fairness in application must inform cases like the one before this Court today, animating the proceedings so that justice, however often slow, is ultimately done. To accept less would be to diminish the Constitution.

It is arguable that today's proceeding turns so greatly on the results of procedure and unintended consequences resulting from the acts by the parties and the courts that the notion of fundamental fairness is weakened. The risk is that when form is elevated over substance, the Constitution's concerns are nearly relegated to secondhand considerations behind burden recognition and tactical strategy. Cases should be decided on the merits when those merits are presented to the courts—and the hope is that no court at any level will inadvertently preclude discovery of the merits. It is not clear whether Biros could discover and presents facts evincing a viable claim that would enable him to prevail in this litigation so that Ohio would need to find another method by which to execute him. It is clear that the law has in part divested Biros of select opportunities to make the attempt.

The Court **DENIES** the December 3, 2009 Emergency Motion of Intervenor-Plaintiff Kenneth Biros for a Temporary Restraining Order, or, at the very Least, for an Order under the All Writs Act Staying his Execution by Defendants and the State of Ohio. (Doc. # 610.)

IT IS SO ORDERED.

/s/ Gregory L. Frost
GREGORY L. FROST
UNITED STATES DISTRICT JUDGE